

UCL refuses to bow to cuts

by Peter David

One of London University's biggest colleges has said that it would apply for direct financial control from the University Grants Committee if the alternative were to bow to enforced "rationalization" within the university as a whole.

Sir James Lighthill, provost of University College London (UCL), has written to the Dyer committee on academic organization, explaining why his college is compelled to give a "totally negative" response to the quest for radical economics.

He says: "UCL has no intention of moving beyond the very valuable and fruitful cooperation within the university that has existed towards the achievement of questionable savings through mergers, takeovers, exchanges or other so-called 'rationalization'."

Sir James also warns that if the university is worried about funding a college determined to retain all its departments and courses, UCL would apply for direct UGC funding. "There is no doubt that such a proposal would be acceptable to UGC," he writes.

UCL's submission to the Dyer committee, which is attempting to produce "large financial savings" through rationalization of the university's academic activities, follows the pattern of responses from most colleges.

Sir James says UCL has no weak departments, and all should be retained to maintain "the full spread of mutually interacting disciplines". Nor does the university have space to accommodate any departments transferred from other schools.

The London School of Economics, King's College, the Institute of Education, Bedford and Westfield have made similar comments. Imperial College has proposed radical changes within the university, but declined to nominate any of its own courses for transfer.

In his submission, Sir James says



Sir Peter Swinnerton-Dyer: "large savings" the target.



Sir James Lighthill: "no weak departments."

that transfer to direct UGC funding would be a step taken reluctantly. "UCL wishes to pay warm tribute to the excellent way in which its finances are at present processed through the Court Department; indeed, we are not raising any objection at all to those present arrangements."

"It is only if the university begins to feel anxiety about a school within its midst which is determined to retain all its characteristics as effectively a university in its own right within the federal University of London that we may be inclined to recommend such a development."

UCL's only proposal for amalgamation is a possible takeover of the nearby School of Slavonic and East European Studies. But Sir James says this would depend on the proposal being acceptable to the academic staff involved.

Westfield College has also made public its response to the Dyer committee this week. It says that all its existing disciplines are vital to the school's academic well-being

and that none of its research is duplicated elsewhere in a way out of line with the national university system as a whole.

Westfield criticizes the Dyer committee for paying insufficient attention to existing intercollegiate cooperation, and doubts whether significant savings would accrue from course amalgamations.

But another of the small colleges—Queen Elizabeth College—voiced this week that its evidence to the committee had come down in favour of rationalization.

Its submission says: "It would be an advantage if the special features and strengths of each college and institution were accentuated. The desire to cover a wide range of subjects by each college in our view depresses standards and increases costs."

The college says that its integrated science faculty is one of the biggest in the university but is relatively understaffed. It suggests smaller departments elsewhere could be closed and their staff transferred.

British Council takes over foreign aid body

by John O'Leary

Months of speculation about the future of the Government's £1m programme of sub-degree projects abroad ended this week with the announcement that the British Council would take over the work of the Technical Education and Training Organisation for Overseas Countries.

Air Neil Martin, Minister for Overseas Development, said that the transfer of TETOC's work would take place in April 1981. The organization, which is wholly controlled and funded by the Overseas Development Administration at present, was signed out for abolition by Leo Pliatsky in his White Paper on quinquages.

At first, only the TETOC Company will be taken over, full integration with the Council following when circumstances permit. The 50 staff will then move into British Council premises.

The organization, which supports development projects in technical education, industrial training, public administration, management development and agricultural education and training, was thought by Sir Leo to duplicate existing provision, but he left open whether to keep the two together or split it between ODA and the British Council.

An ODA statement this week said that Mr Murren's decision reflected the value placed on keeping a TETOC staff united and of ensuring the council's area of expertise. It expected that "significant savings" would result from the takeover.

TETOC's annual report, also published this week, showed that it arranged 1,143 attachments of foreign trainees with British industry. In addition, the organization has supported a number of projects involving work abroad by British academics.

A Report 1979-80, multiple issue of charge from the Library, TETOC, Dacre House, 17-19 Dacre Street, London, SW1.

Two Open University scientists are looking forward to a new Stone Age in their search for alternative heat sources.

They are developing the idea that a hole in the ground 16 square metres and four metres deep, filled with pebbles and covered with heat collecting solar panels, will heat the average home all year round. The device could be covered with water and made to look like a garden pond.

Dr Barrie Jones and Tadi Oreszky have dug the first prototype, code-named Prometheus, in the grounds of the OU campus at Milton Keynes. A mini version, able to heat only one room, it will be monitored for its heat trapping and holding capacity for three years.

Dr Jones said: "If I dug Prometheus in my back garden, it would cost £5,000 to £6,000 to install but its running costs would be spread over 50 years and are so low that the total cost over that period would be less than gas-fired central heating."

Prometheus differs from conventional solar heat systems in being built as an integrated system.

Scots protest over college closure

Government plans to close Hamilton College of Education have been attacked by the General Teaching Council for Scotland.

The council, which advises the Scottish Secretary on supply, itself came under fire in March when it recommended that some colleges be closed, beginning with the smaller ones. While reaffirming this advice, the GTC adds that all the criteria mentioned for the provision of teacher training should be noted, including the importance of ensuring areas of traditional shortage.

A rally against the proposed closures is to be held on Thursday at Hamilton College.

Academics at the polytechnic concerned on several occasions that a department was being closed and two heads sacked. When the department was closed, they were told that the department was being closed and two heads sacked.

A new chair in American history is to be set up at Cambridge University with a grant of £425,000 from the Mellon Foundation, based in the United States.

The chair, the first of its kind in Cambridge, will be known as the Paul Mellon Professorship of American History, after a former student who attended Cambridge in 1920.

Chairman forced to bridge pay talks gap

by David Jobbins

University lecturers and their employers have failed to reach agreement on a new proposed pay deal despite three hours of talks late last week.

The gap between the two sides proved unbridgeable, and for the first time in the 10-year history of the two-stage negotiating machinery, the independent chairman of Committee A, Sir Alexander Johnson, was forced to reach a decision himself.

He is forwarding proposals to the Department of Education and Science for a 13 per cent increase payable from October 1. The lecturers had demanded a "cost of living" increase while the universities initially suggested they could afford only 10 per cent.

The new proposal now has to be considered in Committee B, in which DES officials will give the Government's response to representatives of the Association of University Teachers and the University Authorities Panel.

The three-month delay in convening a meeting of Committee B caused anger earlier this summer, and lecturers' leaders want a more speedy response from the Government this time.

New sources of finance are considered an urgent priority because the success of the teaching company scheme, which was launched in 1977, has caught those involved by surprise. "We keep getting more and more applications and it has frightened the lives out of us," said one SRC official involved with the project.

Academics find the companies useful in providing industrial outputs for their research and students, while industrialists gain through inputs of specialist expertise. The organizers are therefore reluctant to reject any of the recent proposals which are considered a strong mix of top, large companies with consortia of small ones, as well as involving both universities and polytechnics.

If all new proposals were adopted, however, the present three teaching company companies would also have to be expanded to cope with the extra bureaucratic commitment, which would also require more finance.

In recent months, the Department of Industry warned that it might be able to provide it a 50 per cent share of £1.5m annual budget and although there are now signs that it may relent, funding problems are still likely to hamper the expansion of what has proved to be a surprisingly successful innovation.

The Government's attitude to the education of handicapped students was described this week as "inadequate and cynical" by the National Association of Teachers in Further and Higher Education. It said the Warnock Committee would do nothing to help those with special needs.

The association regards the Government's statement that large scale expansion of further education opportunities for those in special need will not be possible in present economic circumstances as showing "tall tales" for existing needs and a "frightening readiness to ignore the difficulties of those with special need through no fault of their own," said a NAFHE statement.

The Government's attitude to further education opportunities for this group is short-sighted bearing in mind the financial self-sufficiency that those opportunities will bring in later life.

A survey undertaken by the association two years ago revealed that very few colleges had special provision for handicapped students and that even where some provision was made this was usually of a very low level. A Government refusal to spend more money could lead to a worsening of facilities for handicapped students.

The association wants the Government to adopt the recommendation in the Warnock report calling for every adult training centre and day centre for the handicapped to contain some educational provision.

Local education authority leaders are to throw their weight behind the National Union of Students in their campaign to persuade more parents to make their full contribution to their children's university or college costs.

A recent meeting of the education committee of the Association of Metropolitan Authorities, council leaders agreed to investigate ways of persuading parents to take out covenants which would oblige them to make the full payments.

Speaking on the BBC Dr Rhodes Boyson, the higher education under-secretary, said the Government was concerned about the number of parents who fail to top up their children's grants. About 80 per cent of students received less than the full grant, and about 60 per cent of those failed to receive the full extra contribution from their parents. Some seven per cent of parents made no contribution at all.

Dr Brian Lloyd, who has been director of Oxford Polytechnic for the past 10 years, will retire at the end of December at the age of 60. Dr Lloyd, who is a naturalist, a physiologist, and a number of individual and personal factors had combined to make this the best time for him to step down.

He is currently chairman of the Health Education Council, the body which promotes health education, and was appointed to the post in 1979.

Staff secure 'time off for union' deal

by Peter David

University clerical and manual workers have clinched a national agreement guaranteeing them time off for trade union activities.

The university authorities represented on the central council for non-teaching staffs have also agreed to disclose information needed by unions to conduct collective bargaining.

Both agreements are likely to be taken up by the university technicians who are not currently represented on the central council.

They were welcomed by the secretary of the trade union side of the central council, Mr Rodney Bickerstaffe, said: "The local authority employers have talked about single figures."

"Speaking on behalf of the manual unions in the universities, there is absolutely no way a single figure settlement would be accepted."

The DES must recognize that this settlement, the last one in the 1980-81 cash limit round, should be agreed forthwith," Mr Sapper added. The 19.6 per cent provisional

agreement reached in Committee A earlier this summer was cut back in Committee B to an average of 11 per cent on CUBER institutions. Leaders of the 31,000 manual and ancillary workers in the universities will be meeting soon to draw up their new pay claim.

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Rent strikes anticipated at colleges

by Paul Flather

Student unions at a number of colleges and universities are preparing to run rent strikes and catering boycotts in protest against new charges for meals and accommodation which far outstrip the increase in the student grant this year of 14.7 per cent.

Students at Kent University, where hall charges for traditional boarding facilities went up 24 per cent, have already voted for a rent strike.

At Kingston Polytechnic, where rents were increased by 30 per cent, the student union is planning to renew a rent strike begun last April. Court summonses were sent to 134 students during the summer vacation to pay rent still owing.

The union is planning a series of food-raising events to help meet students' legal costs rather than pay immediately. The Polytechnic of Central London decided this week to continue a rent strike begun two years ago. Students are paying residence costs at the 1977-78 rate until the dispute is settled.

Sheffield University students union is considering a rent strike, increasing in hall charges of 27 per cent. Others doing the same include Huddersfield Polytechnic (23 per cent increase), University College, Cardiff (30.5 per cent for board and lodging), and Lancaster University (25 per cent).

The National Union of Students has repeatedly warned of widespread rent strikes and catering boycotts as the start of the new academic year. The NUS says the low increase in the level of the grant is not adequate to pay rent increases twice as high which are eroding the standard of living of students.

The NUS is also organizing a week of action against higher catering charges which will affect a million students going to college this autumn.

The union is calling on students in England and Wales to hold "catering boycotts" during which colleges, universities, jobs, and draw up petitions during October 20-24.

Bridging courses 'too narrow' report claims

Bridging courses are not succeeding in changing women's attitudes towards studying or career choices, says a report commissioned by the Further Education Unit of the Department of Education and Science to be published next week.

A major drawback of some bridging courses appears to be the narrowness of the curriculum offered with the result that women students are often not sufficiently informed or prepared for the full range of study and job opportunities which exist," say Dr Sheila Stoney and Ms Margaret Reid of the National Foundation for Educational Research, authors of the report.

The report is based on 12 case studies including a variety of bridging courses such as Return to Work, Return to Study, and New Opportunities for Women courses. It

included a questionnaire, filled in by 174 students, which showed that 54 per cent were in their 30s, 40 per cent had a part-time or full-time job, 74 per cent had some kind of qualification, while some 29 per cent had received advice from further or higher education. The majority hoped that bridging courses would lead to further study rather than jobs.

In its recommendations to help improve the participation of women, the report suggests the provision of a more widely-based curriculum of subjects within bridging courses, including science and technology topics presented in a more imaginative manner.

These developments should be supported by a wider range of college resources. In addition students should be given more help with study difficulties.

Moreover, the absence of written warnings, which were required under the polytechnic's rules, made it procedurally unfair for it to go ahead with disciplinary action.

In fact the action was abandoned after its legality was challenged. Though Sir Smith's redundancy finding had been made against him, this was a serious breach of his contractual rights and, since he accepted the repudiation of his contract within a reasonable time, he had been constructively dismissed.

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Disputes hit Ulster Poly after two dismissals

Two separate disputes have surfaced at the Ulster Polytechnic involving the dismissal of two directors of studies (heads of department).

An industrial tribunal ruled that the former director of the school of hotel catering and tourism, Mr. Jeffrey Hedley, had been unfairly dismissed last year. Days later the polytechnic governors rejected an appeal by Professor John Smith against his dismissal on the grounds of redundancy.

The industrial tribunal decision said that in 1979 the polytechnic proposed to Hedley that he move down to a new post of principal lecturer in his own school, but he refused. A few weeks later disciplinary proceedings were begun against him for failure to make an adequate RND submission in time and for lack of leadership. The tribunal found "no real substance" in the allegations about the RND and held that the disciplinary proceedings were substantially without foundation.

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Overseas News

Changes forecast for Poland

Major changes in Poland's higher educational system may be on the way, according to recent statements from the Minister of Science, Education and Technology, Mr Janusz Gorsk. In recent interviews with the Warsaw daily *Zycie Warszawy* and the prestigious weekly *Polityka*, he announced that a new law was being drafted, designed to meet the demands put forward by the academic milieu. The first draft of the proposed legislation will be ready in December; in the meantime, however, he said, new practices would be introduced in the Ministry's dealings with universities and higher colleges. In particular, the Minister would not appoint rectors without prior consultation with the university senates, who would make their own choice by secret ballot.

The appointment of rectors and other senior academic staff is one of the main issues on the agenda of the new independent Trade Union of Scientific, Technical and Educational Workers (ZZPNT). Indeed, its chairman, Zdzislaw Dabrowski said recently that if the universities could regain true autonomy, many of the day-to-day problems now facing academics would automatic-

ally resolve themselves. Gorski's statements do not, at the moment, go as far as complete academic autonomy; they do, however, ensure that Party backed appointments cannot be made contrary to the wishes of the senate.

Also in question is the future of the Central Commission of Qualifications, responsible for the awarding of higher degrees. The work of this body has, of recent years, aroused considerable doubts in the academic community. Gorski's "personal opinion", he told *Polityka*, is that there should be "much greater explicitness" in the working of the Commission, with the right of appeal in the case of a negative decision.

Young graduates in the technical sciences, also, are likely to benefit from a shake-up in Polserwis, the organization responsible for sending technical missions abroad. In an unusually frank interview with *Warsaw radio*, the director of Polserwis, Wojciech Kowalski, said that the Sejm foreign trade commission which had recently criticized service exports, did not understand the work of his organization. Selections for technical missions abroad were

made by ministerial commissions, whose choice often fell on bureaucrats rather than the required engineers or technical experts. Moreover, the relevant ministries who had to give their consent, said Kowalski, too often weeded out the most promising candidates for their own needs.

Also vocal in the demand for greater autonomy was the annual conference of art college rectors, which met at the end of last month, appropriately, in Gdansk, who at the same time suggested that the state should place greater importance to culture and the arts.

The Presidium of the Academy of Sciences, for its part, has appointed commissions to work on improvements to the planning and financing of research and elections to the Presidium. A meeting in Warsaw last week of the Academy's Presidium also criticized a number of "negative" phenomena in Polish life. One such "phenomenon" was criticized at the moment by practically everyone in Poland, is the strict censorship which, under the terms of the Gdansk accords must be reduced to the minimum required for national security.

Medical graduates attacked as 'superficial and ignorant'

from Uli Schmetzer

ROME

European graduates in medicine are produced on an assembly line. Their motivation is mainly commercial, their training superficial, the methods of teaching old-fashioned and graduate ignorance of modern urban society's ills are shocking.

This devastating judgement of European doctors emerged from a week-long conference in Rome last month organized by the Smith Kline Medical Foundation. The main aim of the conference was to study reform of medicine at university level.

The conference published a 100-page document entitled *The Formation of a Doctor in a Changing Society*. Its conclusion warned that medicine was in a grave crisis not only in Italy but in every country of the European Community.

"This is mainly due to the antiquated study structures of old Europe where faculties and academic senates have failed to absorb the technological and scientific progress of the last decade", the document said. "This has led to a

social and cultural crisis at a scholastic level and in particular in the medical sciences."

The Rome conference was organized by Professor Aldo Angrisano, the Italian representative on the REC Commission for the Formation of Physicians.

The outspoken document criticized today's medicine graduates as superficial, lacking in motivation, or private practice, hardly motivated, scarcely competent (though often highly cultured) and incapable to confront the ills of a modern urban society.

Among these modern ills "the conference singled out the problems of old people, the phenomena of drug-dependence, the characteristics of professional life, the complications from labour accidents, the stresses of an urban environment and chronically degenerating behaviour patterns."

The document said both in Italy and Europe there was a need to create a new type of doctor, one competent to deal with a society profoundly changed in respect to half a century ago. A period on which most medical training is still based today.

Guerilla group issues death threat to student leaders

from Howard Barrell

JOHANNESBURG
An extreme right-wing white guerrilla group, the Wit Kommando (Afrikaans for white commando), has issued death threats to two leading members of Poltu, the newly formed Verligte (enlightened) political organization for South African students. Recipients were Poltu chairman Peter Fourie and founding member Hugo Pienaar, a Potchefstroom University law student.

The Wit Kommando also threatened Mpho Mashini, brother of the exiled leader of the 1976 Soweto student revolt, Tshepo Mashini. Mpho Mashini is one of a small group of black students who have publicly met with the Afrikaner-dominated Poltu organization.

Mpho Mashini, a former accused under South Africa's wide-ranging terrorism act, addressed Poltu's founding Congress in September. Police are reported to be investigating the Wit Kommando's responsibility for a recent bomb attack on the offices of a Verligte Afrikaner academic, Professor Jan Lombard, a Pretoria University political scientist.

Professor Lombard had authored a recently-sentenced article in a national paper for South Africa's Natal province in terms of which black groups, particularly Chief Gatsha Buthe's Inkatha National Con-

tural Liberation Movement, would have more say in the running of the region.

Both Fourie and Pienaar have reacted to the threats by saying they "will not be bullied" by the extreme right-wing underground grouping.

"I want to assure my nameless friends that I won't break my strong bonds with my black Christian brothers, or give up the leadership of a student political organization that is striving to realize a peaceful South Africa for all its people," said theology student Fourie, who also heads the Students' Union for Christian Action (SUCA).

The Wit Kommando threats are seen by some observers as indicating a deepening of the schism within Afrikanerdom, the effective political power in South Africa.

In the view of these observers, Afrikanerdom factions are divided largely along economic class lines. The one class, the Afrikaner students, from their mainly middle-class backgrounds, are, in small but significant numbers, pushing for the involvement of South Africa's black population in the effective decision-making process. On the other hand, the poorer sections of Afrikanerdom feel threatened by black advancement in that it would endanger their position of relative privilege on the factory floor, in comparison, to the position of blacks.

White Book hits out at training

from Guy Neave

PARIS
Greater attention should be paid to improving research teams if France is to avoid becoming a colony for scientific research, intimated elsewhere. This is one of the major recommendations contained in the Government White Book published yesterday. The White Book, drawn up in response to a request from the President of the Republic, Valéry Giscard d'Estaing, deals with the contribution of scientific research to France's development.

Intended to be shown to the public at some of the major issues confronting the French scientific community, it is particularly hard-hitting at the way researchers are trained in France.

Research workers, whether they are engaged in applied or fundamental inquiry, require the imagination and originality. The competitive examinations, however, in higher education do little to foster these qualities, it says.

Also criticized is the Government's policy of trying to match scientific research with those needs thought to correspond with the current needs of applied work.

China starts education drive

Beijing's district colleges, which were closed for more than 12 years, have reopened as part of the drive to raise the educational level of workers and managerial personnel.

Now six districts in the city are running colleges, mainly geared to teaching middle school graduates working in the city's several hundred small factories, shops, government offices and neighbourhood committees. The first district college, which runs a full-time college, the five other district colleges are part-time, with an enrolment of about 2,200, most of whom graduated from middle school during the Cultural Revolution.

The colleges give two to four courses in the Chinese language, foreign languages, law, industrial, economics, business, management, architecture and medicine. Students attend classes on half-day plus two or three evenings a week. They will return to their work units with college diplomas after passing final examinations.

The Hongqi Evening College trained over 1,300 students in the eight years before 1966. Many of the graduates have become the backbone of the technical force in the district factories and enterprises.

Unqualified adults stand good chance

from Geoff Maslen

MELBOURNE

Australian adults with no university entrance qualifications have a good chance of succeeding at university studies as the students who enrol straight from secondary school, a study at Deakin University, in Victoria, has shown.

There appears to be no major difference between "special entry" students and other categories of students in retention rates, pass rates, or the proportion of distinctions gained, the study of results of last year's students shows.

The Deakin investigation was made against a background of growing demand for tertiary studies by older or "mature age" Australians. Already in some universities a quarter of the student population are aged 25 or over. In colleges of advanced education where half of all students are studying part-time and externally, one in four of the students is older than 25.

The increasing number of older people seeking entrance to universities and colleges coincides with decline in the number of students leaving schools to go on to further study and the higher education institutions have not been slow to see the implications. Most universities now have some kind of special entry scheme which allows people without formal university entrance qualifications to enrol. But there is concern that in attempting to meet quotas, by admitting increasing numbers of mature age students, academic standards will be lowered. The Deakin study suggests this may not be the case.

Leavers study looked at the results of students with normal university entrance qualifications, both under and over 21, studying on campus and off, and these special entry students also studying on campus and externally.

On average the retention rate of about 50 per cent was remarkably constant across all groups. The pass rate ranged from 67 per cent for the special entry on campus students (but 74 per cent for external mature age students) to 78 per cent for the under 21 normal entry students.

Mature age off-campus students rated second highest for grades of distinction or high distinction, they comprised 20 per cent of the mature age students.

On campus normal entry students scored 13 per cent in each grade. Overall the results show a consistent difference between any of the sub group investigated for the nine courses - from those offered by the schools of humanities and social sciences.

Commenting on the results, the vice-chancellor of Deakin University Professor Fred Jevons said: "Some people talk of the importance of maintaining standards. I interpret that to mean standards on high entry students. Personally I believe that the standards in this matter are those at the exit, not those at entry."

Benny Morris in Jerusalem meets the new head of a philosophy department

Father Dubois' ironic elevation

Father Marcel Dubois, a Christian monk, has just been appointed for a three-year term as head of the Hebrew University's philosophy department. He is quick to note the irony of his elevation.

It was the Dominican Order, to which Dubois has belonged since the age of 18, which was charged by the popes of the late Middle Ages with cleansing Christendom of heretics and infidels. And it was the Dominican Thomas de Torquemada, the first Grand Inquisitor, who in the late fifteenth century persecuted and hunted the Jews out of Spain, an act compared in Jewish history to the Romans' destruction of the second Jewish Temple in 70 A.D. and in the murder of six million Jews in Europe by Hitler during the Second World War.

I interviewed the 60-year-old Dubois, the only non-Jew ever to head an Israeli university department, in his study in Ma'alon Issa, West Jerusalem's small Dominican monastery, situated some 500 yards from the Old City walls.

Olivia traces the walk leading to the stone building's entrance; a whitewashed corridor, vaulted with portraits of saints, leads to Dubois's second-floor study, where shelves, desk-top and floor are piled high with books in French, English, Hebrew and Latin. A crucifix adorns one wall, while a white crucifix hangs from a peg on another.

Dubois is a deeply committed Christian Zionist, a youngling breed in a world which once produced General Charles "Chinese" Gortals and Arthur James Balfour, General



Marcel Dubois: precision and erudition.

of the Christian church's "Joseph for, historic reconciliation" with the Jewish people. Each year he addresses thousands of Israeli students on Christianity. And every summer he lectures abroad to visiting Christian groups about Judaism, Zionism and Christianity.

An Israeli citizen since Christmas Day, 1974 ("I chose the day carefully"), Dubois speaks passionately about resurgent Islam and of what he calls "the Jewish people's spiritual crisis." "I invite my European friends to regard with amazement the spectacle of the persecution of oil barons, combatants and mullahs, all busy hunting the same anti-Israeli epithets. They are all instruments of the devil. The oil barons are the devil's tools for a general onslaught on the forces of darkness against the Light."

Sent to Israel by "a providential coincidence of my desires and the superiors' desire to study the philosophy and culture of the Jews," Dubois, "quite unexpected," he says, was invited by the Hebrew University's philosophy department to give courses on Aristotle and Aquinas. He stayed on and received a doctorate.

He says that since coming to Israel he has become "more and more convinced of the Jewish people's special destiny." He calls Israel's growing political isolation "a proof."

"Only on a superficial level," he says, "is it due to the wrong policies of Israeli politicians. In truth, the Gentile world is ill-

Anthony Quinton chronicles the public and private reversals in the life of Francis Bacon

So much glory, so much shame—a just epitaph?

Francis Bacon was born on January 22, 1561, at York House, off the Strand in London. He was the second son of Sir Nicholas Bacon, Lord Keeper, and of his second wife, Ann Cooke. Nicholas Bacon had been born in 1509 in a comparatively modest social position: his father, according to the *Dictionary of National Biography*, being "sheepreave to the abbey of Bury St Edmunds". But he got to Cambridge, became friends there with William Cecil, later Lord Burghley, and Elizabeth's chief minister, and with Matthew Parker, later archbishop of Canterbury. In the 1540s he acquired a good deal of former monastic land and with the accession of Elizabeth was appointed Lord Keeper. Even if this was through the good offices of Cecil, Nicholas Bacon soon showed his capacity for a high post. Unlike his famous son, he was "exceeding gross-bodied".

Bacon's mother was a well-educated and doctrinally rigid Calvinist. It is possible to interpret her son's pious expressed insistence on the size of the gap that separates knowledge of nature, based on sense and reason, from supernatural knowledge, based on revelation, as a direct consequence of her severely Protestant teaching, on the assumption that the pious person is sincere, or as an ironic rejection of that teaching, if they are not. Anne Bacon was the sister of the wife of William Cecil, her husband's Cambridge friend, the Lord Burghley who was to be the largely unresponsive object of constant pleas for preferment from her son, Francis.

Bacon accompanied his elder brother, Anthony, to Trinity College, Cambridge, in April 1573 at the seemingly rather unripe age of twelve years and three months. They lived there for only two years. It has been speculated that Bacon must have been influenced by the philosophical currents ruling the time. In particular it has been suggested that he may have attended lectures at which the new logic of James was expounded. Reverend Dugby, who was to defend the old logic against the Ramism of his former pupil, William Temple, in the 1580s, became a follower of St John's and began to lecture on logic in the year Bacon arrived in Cambridge. Much later in life Bacon said to his biographer, Rawley, that he fell into the disavowal of the philosophy of Aristotle; he was the worthlessness of the author; to whom he would ever ascribe all high attributes, but for the untruthfulness of the way.

It is easy to understand why Bacon's biographers should seize on any available clue to the development of his mind. From the time he left Cambridge, when still less than sixteen, until his disgrace in 1621 at the age of sixty he was continuously engaged in a busy public career: legal from 1579, frequent political orator, direct service of the crown, and all this and the extravagant glorification of his estates at Gorhambury was there time to acquire the stores of knowledge which made his gigantic philosophical-scientific project at least not ridiculously overweening, and enabled some substantial chunks of it to be realized.

The year after he left Cambridge Bacon accompanied Sir James Dudley, on his embassy to France. He was still out of England in 1579, when his father died. He found himself in a predicament which circumstances did not make easy. Dudley was sent towards the repair of the French fleet, and the year after he was back in the House of Commons as member for Malton. He was the first of a large number of places

he was to represent. Before he was 20 he had begun the long-drawn-out process of badgering for favour, starting with his uncle Burghley, but going on in due course to other, sometimes more forthcoming patrons, such as Essex, Queen Elizabeth, Buckingham and King James I. It is naturally conjectured that Burghley's generally unenthusiastic response to his gifted nephew's solicitations was due to concern for the worldly fortunes of his own, rather less gifted, son Robert Cecil, later Earl of Salisbury, who despite his second-rate, if sturdy, abilities, succeeded his father as chief minister and remained in that position until his death in 1612.

Some time in 1591 Bacon made the friendship of the Earl of Essex, Elizabeth's favourite, still in some disgrace for his marriage, not approved by the queen, to the widow of Sir Philip Sidney. Only twenty-three, Essex was six years younger than Bacon. His highest moment as a national hero after the expedition to Cadix was still three years away. In 1592 Bacon wrote in a letter to Burghley the famous sentence, "I have taken all knowledge for my province." Perhaps the main outlines of "The Great Instauration", the fabulous, grandiose programme of Bacon's intellectual career, were already worked out by this time. He was more visibly active in the world of public affairs. Essex's favour, often self-destructively impetuous, failed to secure for Bacon the post of Attorney-General. It went to the man who was to be throughout his life his most persistent enemy, Edward Coke, defender of the common law against absolutist tendencies in Elizabeth and James I. Even the lesser post of Solicitor-General was not forthcoming, since Bacon had aroused the queen's resentment by his persistent opposition to her taxation policies.

During this comparative lull in his activities Bacon may have been engaged on writing the first of his *Essays*. The first collection of them, 10 in number, came out in 1597. (They reached their final total of 58 in the edition of 1625, a year before Bacon's death.) His financial affairs were in a bad state. In 1598 he was briefly arrested for debt. The disastrous failure of Essex's Irish expedition gave Bacon an opportunity to retrieve his position in the eyes of the queen, and to give evidence of somewhat repulsive qualities of character: Essex was a man of great energy, but his leadership and disloyalty to the queen's commands, enraged and affronted by his fall from the queen's favour, Essex planned an insurrection. The support on which he had counted failed to appear and he was soon a prisoner.

Both Bacon and Coke took part in the ensuing prosecution. Coke performed in a muddled and incompetent fashion and Bacon had to rescue the proceedings from his clumsiness. Essex was condemned, and executed. Bacon has been much blamed for his betrayal of Essex, but, whatever responsibility he may bear for encouraging Essex to pursue his Irish misadventure, he does not seem to have had any knowledge of Essex's plot to seize the position of chief minister by a violent coup d'état.

These at least somewhat morally ambiguous services to the crown do not appear to have done anything to overcome Elizabeth's dislike for or distrust of Bacon. With her death in 1603 and the accession of James I Bacon's hopes of preferment once more came to life. He was indeed knighted four months after the king came to the throne, but the state of his patron's favour was dimmed by the fact that it was also conferred on three hundred other people. He was active in Parliament, particularly in working on the consequences of the union of the English and Scottish crowns, but there his influence was limited. He finally achieved the Solicitor-Generalship, Coke being no longer an obstacle, since his promptness to the



Francis Bacon: "a fairly cold fish".

National Portrait Gallery

bench in the previous year.

In 1606 Bacon married Alice Barnham, daughter of a sheriff of London and an heiress. The *Encyclopaedia Britannica* says that it seems that [this] marriage... though childless, was not unhappy. Aubrey takes a more colourful view of Bacon's domestic life, saying that he was a pedantic and that his Gentlemen and his favourites looked bribes but his lordship always gave judgment secundum aequum et bonum. He goes on to suggest that Bacon's wife was not without consolation. His dowager, he writes, married her gentleman-usher Sir Thomas, a third son of whom she made deaf and blind with too much of Venus.

In 1605 the first of Bacon's philosophical writings was published: *The Advancement of Learning*. The first book is a flowery, pedantic treatise on learning; the second, more than twice as long, is largely taken up with a highly elaborate classification of the varieties of knowledge that has exercised a profound influence on the arrangement of libraries and of encyclopedias ever since. Four years later Bacon's *De Sapientia Veterum* came out, an influential work on the moral and prudential meaning of ancient myths that was, after the *Essays*, the most widely read of Bacon's books in his own lifetime. In 1610, he wrote his *Nova Atlantis* (it was not published until after his death), in which his influential views about the social nature of scientific research were put forward in imaginative form.

The welcome death of the hated Salisbury in 1612 brought Bacon back to the public world. The other main human obstacle to his political career, Coke, was removed, not by death, but by promotion to the court of King's Bench at Bacon's suggestion. Now at last he achieved the post of Attorney-General he had pursued for such a long time. He addressed himself effectively to the king's new proposals for a

Villiers, soon Earl, and eventually Duke, of Buckingham. He occupied himself with supporting the royal prerogative against the common rights and customs defended so doggedly by Coke, and developed his far-seeing ideas about the rationalization of law.

In 1615 the case of Peachment took the long-standing hostility between Bacon and Coke a stage further and also supplied more material for assaults by Macaulay on Bacon's character. Peachment was a clergyman suspected of seditious conspiracy on account of notes for a sermon found among his papers. He was turned, in Bacon's presence, to avoid the presumably non-existent accomplices, without success. In going on to prosecute Peachment for treason anyway, the government, advised by Bacon, sought the judges' opinions severally and not as a court. A series of collisions between Coke and the king about the jurisdiction of various courts, and, in the end, about the king's power to draw the boundaries between them, led to James's dismissal of Coke. In 1617 Villiers secured for him his father's post of Lord Keeper and, finally, in 1618 he achieved the highest legal position under the crown, that of Lord Chancellor.

Just as his fortunes seemed assured and his odious rival, Coke, irretrievably humiliated, Bacon slipped the main in the matter of the marriage contracted between the younger brother of his patron, Villiers, and the daughter of Coke. The young woman's mother was opposed to the marriage and Bacon thought to rid the king of the greatest of all his misfortunes by procuring for him the marriage. He apologized cringingly and in 1621 became Lord Verulam. In 1621 he was raised to the rank of Viscount St Albans. Less than three months later the greatest of all his misfortunes broke upon him in the form of petitions to the House of Commons "charging" him with bribery. The House of Lords took up the investigation. Bacon fell ill, thought of defending himself, and in the end, self-dramatically admitted the charges against him. The sentence delivered was severe: a fine of £40,000, imprisonment, in the Tower, during the king's pleasure, and

disqualification from Parliament and exclusion from the court and his neighbourhood. In fact the fine was, in effect, remitted; he remained only two or three days in the Tower. But he was unable to get released from his exclusion from within twelve miles of court until he had sold his birthplace and grand London dwelling, York House, to the greedy Buckingham, acting here with all the polished elegance of a looter scavenging at the scene of an air crash.

This reversal was the end of Bacon's public life. But he remained active and enterprising until his death five years later. *Novum Organum*, the second of his major philosophical works, had been published in 1620, a year before the catastrophe. Less than six months after sentence had been passed on him he had finished his monograph on King Henry VIII. Two compilations of natural history, raw material arranged for investigation by the method he had worked out in *Novum Organum*, soon followed: *Historia Ventorum* in 1622, *Historia Vitae et Mortis* a year after. Also in 1623 a published *De Augmentis*, a considerably enlarged version of the *Advancement of Learning* of 18 years earlier.

He did not give up his life-long habit of pestering the great for preferment. He sent a copy of *Novum Organum* to the king, who likened it, in a well-used formula, to the peace of God, since it passed all understanding. The story of his death, recounted by Aubrey, is well known. It should be quoted in Aubrey's words:

"He was taking the air in a coach with Dr. Witherington, a Scotchman, Physician to the King, towards Highgate, snow lay on the ground, and it came into my lord's thoughts, why flesh might not be preserved in snow, as in salt. They were at sea, they would not the experiment was only. They alighted out of the coach, and went into a poor woman's house at the bottom of Highgate hill, and bought a hen, and made the women extend it, it was then stuffed the body with snow, and my lord did help do it himself. The snow so chilled him, that he could not then return to the lodgings (suppose then at Gray's Inn), but went to the earl of Arundell's house at Highgate, where they put him into a good bed warmed with a panne, but it was a damp bed that had not been lay-in in about a year before, which gave him such a cold that in two or three days, as I remember he [Hobbes, Aubrey's informant] told me, he dyed of suffocation."

Bacon's character has not been much admired. Pope's couplet is memorably concise:

If parts allure thee, think how shamed
The wisest, brightest, meanest of mankind.

It was a period when the more agreeable aspects of human nature were not much encouraged in English public life. Elizabeth and James I had some excuse in the dreadful fates of their respective ministers. The Cecils were devoted and insincere; James I's carmines, Somerset and Buckingham, much worse. It is Bacon's special misfortune to have been the subject of a marvellously readable, but rolickingly injudicious essay by Macaulay, in which the worst construction is put on his not unrepresentative leaning on the great, his betrayal of Essex and the malpractice that brought down on him the disaster of 1621.

He seems to have been a fairly cold fish. He said of himself, "I have rather studied books than men" and ordinary private affections appear to have played little part in his life. If so it may help to explain how he managed to achieve as much as he did of his grand design while caught up, in Macaulay's phrase, with "so much glory, so much shame".

The author is president of Trinity College, Oxford. This article is an extract from his new book, *Francis Bacon*, which is to be published next Thursday as part of Oxford University Press's *Portraits of Masters* series. The price is 10s. 6d.

emergence of philanthropic traditions



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WHO'S WHO: FOUR FOUNDATION DIRECTORS

The late John D. Rockefeller III, speaking in 1977, addressed the necessary roles played by the "charitable" and "corporate" sectors in the denazification of the United States. "If we allow the financial sector to continue to erode, we wake up some morning to find ourselves living in a very different society. And if we ever have

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BOOKS

Politics from below

هذه في الجمل

BOOKS

Efforts to restore geometric paradise

Oscar Zariski: collected papers
Volume IV: Equisingularity of algebraic varieties
Edited by J. Lipman and B. Teissier
Wiley Press, £31.00
ISBN 0 202 08049 4

Contributions to Algebraic Geometry: In honour of Oscar Zariski
Edited by Michael Artin and David Mumford
Johns Hopkins University Press, £35.00
ISBN 0 8018 23 7 2

These two books relate to one of the most remarkable mathematicians of this century, Oscar Zariski. Zariski's continuing career as a geometer has already spanned almost 60 years, and for at least the latter half of this period he has ranked among the two or three outstanding practitioners of the subject.

Oscar Zariski was born at Kobrin in Russia on April 24, 1899. He studied first at the University of Kiev, where his interests lay in algebra and the theory of numbers, and then, in 1921, he went to Rome. At that time, the University of Rome numbered among its professors three giants of the Italian school of geometry, Castelnuovo, Severi and Enriques; and, in this atmosphere, it was natural that a young Zariski should become a geometer.

The Italian geometers of the time used whatever tools were at hand, whether algebra-geometric, transcendental or topological, coupled with a geometrical imagination that gave the subject a beauty to match that of the Italian scene. This was a mathematical atmosphere in which Zariski worked happily not only for the six years he spent in Italy, but also for 10 years or so after he moved to Johns Hopkins University at Baltimore in 1927.

As Zariski has said, the breakthrough or breakthrough came in 1925 when he published his monograph on algebraic surfaces in the Enriques series, one of the great classics of mathematics. In a remarkable

first chapter Zariski analyzed the proofs given by various Italian geometers of the key result on the reduction of singularities of surfaces, and found them all lacking in rigour. Zariski felt he had succeeded in conveying the beauty of Italian geometry, but at some cost to himself. In his own words: "The price was my own personal loss of the geometric paradise in which I so happily had been living."

Like Van der Waerden, a little earlier, and Andre Weil, at about the same time, Zariski turned to the abstract algebra of Emmy Noether and her school in an effort to restore paradise. He spent two years in learning abstract algebra and then proceeded to apply it. The result was a remarkable series of papers which were to transform algebraic geometry, without destroying the beauty the Italians had created. These papers have appeared over the past 40 years and space will only permit us to consider two groups—the earlier ones in which were developed what have become the basic tools of the modern algebraic geometer, and those which have appeared since 1963, contained in the first of the two books under review.

Zariski was quick to realize the importance to geometry of the concept of integral dependence in algebra and the closely related theory of valuations developed in a very general form by Wolfgang Krull. The first led him to the idea of the normalization of a variety which reduces the reduction of singularities of curves to a triviality and eliminates all but isolated singularities from surfaces.

After developing these basic ideas and also an algebraic approach to the idea of infinitely near points, Zariski next set himself the task of proving algebraically the resolution of singularities of surfaces. This proved to be a first step in the proof of the weaker result known as the local uniformization theorem for surfaces; and in a remarkable paper which followed, Zariski was able to prove this result for

varieties of any dimension, provided that the field over which the variety is defined is of characteristic zero. The next paper in this group is, in my opinion, the most important of all, as it put on a firm algebraic basis the whole theory of birational correspondence. Zariski was able to do this without any restriction on the characteristic of the base field; and, further, the role played by normalization in geometry became fully apparent. Finally, in this paper appeared what is now known as the Zariski Main Theorem, not only a key theorem in geometry, but in algebra as well.

Two more papers in this group should be mentioned. In the first Zariski broke new ground in proving the resolution of singularities for three-folds. In the second Zariski forged a link between the



Oscar Zariski

geometrical notion of a simple point and the algebraic notion of a regular local ring, and as a result extended the geometric notion to varieties over fields of any characteristic. This paper inspired the structure theory for complete local rings which was the work of a student of Zariski, I. S. Cohen. Throughout the 1950s, Zariski, now at Harvard, continued to apply algebraic methods to a wide-ranging series of problems in geometry. In this period Zariski contributed almost as much to commutative algebra as to geometry and inspired a whole generation of algebraists to look to geometry for their ideas. Zariski's work must be counted as a major factor in the synthesis of geometry and algebra, which found its realization in the theory of schemes developed by Serre and Grothendieck.

Now we must move forward. The MIT Press, as part of their series "Mathematicians of Our Time" planned a four-volume collection of Zariski's papers. The first volume appeared in 1977, but the fourth volume has just appeared. It is with the latter that we are now concerned. It covers the period 1963-1979, and, with one exception, the papers deal with one topic, equisingularity.

The first paper in the book sets the scene. Zariski's brilliant young student, Heisuke Hironaka, had just solved the problem of resolution of singularities in all dimensions, at least in characteristic zero. Now the burning problem was the classification of singularities. Zariski, in 1954, Zariski had tentatively devised a procedure of dividing the set of points of an algebraic variety into strata of singularities of increasing complexity, or as he puts it, strata of equisingularity. Particularly notable, however, is Zariski's own definition of equisingularity. This problem is difficult. Equisingularity is too weak, analytic isomorphism too strong.

Zariski has not been alone in this mammoth effort. He has been

enthusiastically supported by a group of brilliant young geometers at Harvard, and as a result the geometric notion to varieties over fields of any characteristic. This paper inspired the structure theory for complete local rings which was the work of a student of Zariski, I. S. Cohen. Throughout the 1950s, Zariski, now at Harvard, continued to apply algebraic methods to a wide-ranging series of problems in geometry. In this period Zariski contributed almost as much to commutative algebra as to geometry and inspired a whole generation of algebraists to look to geometry for their ideas. Zariski's work must be counted as a major factor in the synthesis of geometry and algebra, which found its realization in the theory of schemes developed by Serre and Grothendieck.

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David Rees is professor of mathematics at the University of

House-work

Middle-Class Couples: a study of segregation, domination and inequality in marriage
By Stephen Edgell
Allen & Unwin, £6.95
ISBN 0 04 301103 9

It is not surprising that so little is known about family life in western industrialized countries. The protective barrier of the home is a major hurdle to researchers who wish to extend our existing knowledge and beliefs. The past two decades have seen an increasing number of social scientists tackling the methodological problems, but the advances in our understanding of contemporary family life have not always justified the research effort or the length of the published work.

In the field of family studies there has been a major debate on the changing nature of spousal relationships centring on the question of whether they can now be properly described as egalitarian. It has been commonly believed that in Britain it is middle-class marriages that are especially characterized by marital equality, despite the lack of supportive empirical evidence. Stephen Edgell's book investigates the apportionment of power and work within middle-class families; based on the author's fieldwork, it compares his findings with the evidence and conclusions of earlier studies.

Edgell's sample consists of thirty-eight professional workers and their wives, all of whom were at the child-rearing stage of the family cycle. The author makes clear that no claim is being made for the representativeness of those who were willing to provide information about their marriages through the completion of questionnaires and interviews. The husbands were employed as either dentists, or as scientists or engineers within the public or private sectors. The most interesting part of Dr Edgell's book is his analysis of how the husband's interests dominate important family decisions and the relationship between this and the male-dominated world of paid employment.

Attention is mainly focused on the families of scientists and engineers, where the husbands had ambitions of professional advancement and were willing to move home in the event of promotion. Deciding the husband's place of employment was seen by both spouses as a career decision, rather than a domestic one. The importance of his career compared with other matters affecting day-to-day household life. This attitude was common to all the respondents; the stiling of the family home after marriage had been determined by the location of the husband's work, and at the time of the fieldwork, only two couples had chosen their homes on consideration of factors other than the husband's career.

Both husbands had decided their wives no longer concerned with problems of domesticity. There were some issues of less concern to the women, where the decision-making process encompassed both spouses, but when it came to the more important household matters—such as child, children's clothing and interior decorations—it was always the husband who made the decision. The wife's role was to make the minor decisions to do with the house and children's rarely made what were considered by the respondents to be important family decisions.

The husband's dependence of wife and children on the husband's income and the low esteem accorded to housework and child-care help to reinforce the wife's subordinate position. Within marriage, this subordinate role is reflected in the sexual division of labour whereby domestic tasks are the responsibility of the wife. None of the respondents had a career which would be a more agreeable and rewarding mix of child-care and household tasks. The wife's role was to make the minor decisions to do with the house and children's rarely made what were considered by the respondents to be important family decisions.

Two major questions directed Swidler's research: how organizations without authority work, and why such organizations have emerged now. Her book reports on ethnographic research conducted in two free schools: Group High and Ethical High in Berkeley, California, where she examined how the schools actually worked, how the members interacted, and controlled the school and the consequences of attempting to abolish authority. The ethnography is set in context by a chapter which describes the background of the schools and examines the unique features of the Berkeley community. Indeed, Swidler indicates that experimental and free schools were established in response to political pressure from teachers, parents, students and community groups. This is a valuable analysis of decision-making in the community and a welcome addition to the literature of contemporary family life.

Swidler looks at three major responses to the absence of authority within the schools: personal initiative, collective control

and status equalization. She focuses here on the teachers who, she argues, utilize their personal lives to provide the context and the constant for a new curriculum and a new pedagogy that creates a system of social control.

In the final section of the book she attempts to examine free schools in a broader context. Reviewing research on open classrooms in Britain and America, and attempting to evaluate the short-term consequences of free schools, together with the long-term results of alternative organizations, she concludes that free schools have rejected the traditional form of social control but have substituted direct, collective, internalized controls that support a new model of organizational life. These attempts at generating from her material raise serious questions about comparability in social research and the relationship between microcosmic and macroscopic analysis in the sociology of education.

Despite the rich ethnography, the book has one major defect. Swidler does not offer the reader a chapter or appendix on doing research. Instead a single page describes her fieldwork as consisting of free discussion with teachers and students, which was easy given the informality of the schools. Yet, as in her analysis, indicates that she was questioned about her observer role. Indeed, in one class the students were offered when she wanted to observe them. This is a valuable analysis of decision-making in the community and a welcome addition to the literature of contemporary family life.

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In this novel of 1936 Troyat explores the egocentrism and inauthenticity of the life of the actor and analyses the psychology of the role. In a deceptively unobtrusive style he forges a compact novel in which the central images of actor and mirror come to dominate the narrative itself. Questions raised by the novel therefore concern the psychological analysis of character and the handling of imagery.

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God and society

Sociology and Theology: alliance and conflict
Edited by David Martin, John Orme
Mills and W. F. S. Pickering
Harvester Press, £18.50
ISBN 0 85527 907 9

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BOOKS

Could Oxbridge finance nursery schools?

Under Five in Britain
by Jerome Bruner
Grant McIntyre, £9.95 and £3.95
ISBN 0 86216 000 6 and 001 4
Childwatching at Playgroup and Nursery School
by Kathy Sylva, Carolyn Roy, and Marjorie Painter
Grant McIntyre, £9.95 and £4.25
ISBN 0 86216 002 2 and 003 0
Children and Minders
by Bridget Bryant, Miriam Harris and Dee Newton
Grant McIntyre, £9.95 and £3.95
ISBN 0 86216 004 9 and 005 7
Children and Day Nurseries
by Caroline Garland and Stephanie White
Grant McIntyre, £7.95 and £2.95
ISBN 0 86216 006 5 and 007 3

During the past 20 years a number of studies have identified both the value and the shortage of facilities for the under fives. Even Mrs Thatcher's White Paper of 1974, *Education: a framework for expansion*, advocated considerable growth in nursery education.

Now, funded by the SSRC, and headed by Professor Jerome Bruner, the Oxford Pre-school Research Group has published the results of a three-year inquiry into the day care (outside their own homes) of Oxfordshire children. The first four volumes provide a most detailed examination of the major types of care, namely playgroups, nursery schools, child minders and day nurseries.

Sylva, Roy and Painter describe their observations of a few playgroups and nursery schools. They attribute play groups' rapid growth — and their major strength — to the participation of mothers, and they

conclude that the emphasis on play and expression contributes to experiences which "appear to produce as good results for their children as are achieved in more established institutions". The main disadvantage of playgroups is the restricted hours — children stay for about three hours a day — which makes them unsuitable for the children of working mothers. Nursery schools provide more formal instruction for longer hours although they too are closed during school holidays.

In the third volume, Bryant, Harris and Newton concentrate on child minders, women who are paid to receive children into their own homes. In the most lively and readable volume in the series, they emphasize that Oxfordshire minders are not to be compared with the inner-city minders whose standards have shocked other researchers. Most, in their study, provided adequate space and toys and did care about the children. The researchers found that the majority of the minders were quiet and subtle at the minders' and were not "thriving", but attributed these disturbances not to the minders, but to the stresses in the children's backgrounds.

Day nurseries supply social care to fit in with working hours. Such is their shortage that most statutory nurseries take on children who are considered "at risk" from home difficulties. Indeed, the researchers found so few in Oxfordshire that they turned to London for a sample of three local authorities and seven private or voluntary nurseries. In the fourth volume, Garland and White generally found the children to be well cared for and showing few disturbances. They particularly approved of those nurseries which aimed to promote

satisfying relationships, used democratic systems of management, and employed a "cooperative" style of control. Drawbacks were high staff turnover and, at least in the private nurseries, a tendency to be isolated from the outside community.

The researchers have succeeded both in providing examples of good practice and in revealing the limitations in provisions for the under fives, though they probably understate the latter. I work on a council estate on the edge of prosperous Bath. The council's only day nursery is a £1 bus trip away. I know of no official minders on the estate. In some localities, day care is almost non-existent. What can be done? Bruner accepts that the government is unlikely to find additional resources to expand the number of pre-school facilities. The research team therefore recommend extending the hours of playgroups and nursery schools, improving the training of staff, lessening the insularity of centres, clarifying their goals, and improving the placement arrangements and the relationships between minders and mothers. Even these modest reforms would require cash, while the cost of increasing facilities to meet demand would be around £300m.

While applauding these proposals, I must add two points. First, the researchers seem agreed that the most needy children come from low income families. The main thrust of social policy therefore should be towards improving their finances. Mothers could then choose whether to work or not, and if nurseries could be better equipped to purchase adequate day care. Second, the aim of expansion in facilities should be retained. The present obsession with economic criteria should not lead to the

abandonment of goals which are into consideration the social, emotional and intellectual needs of children.

Any proposals, modest or grand, should be prepared to say what the extra resources should be obtained. A few years ago, I was asked to prepare a report on day care by lowering the leaving age, but now such a proposal would swell the numbers of young unemployed. So why divert money from Oxbridge? The answer is that day care staff, lack of play space, fields and trees in the inner city and council estates, enormous halls, high ceilings and rich endowments of Oxbridge colleges and staff. Bruner and his colleagues do not discuss how pre-school facilities should be financed. Perhaps they should have had around them. But that would have meant entering the arena of political values.

Initially, Professor Bruner expressed doubts about engaged research which does practice. Much to their credit, the team disseminated their findings among pre-school leaders as research progressed. The book showed little interest in the social findings but were prepared to adapt the methods of observation to improve their own practice. Would that other academics possessed similar concern for practitioners.

Robert Holman

Robert Holman is a community social worker with the Church of England Children's Society and was formerly professor of social administration at Bath University.

Relieving family stress

The Family Fund: an initiative in social policy
by Jonathan Bradshaw
Routledge & Kegan Paul, £10.95
ISBN 0 7100 0520 2

The Family Fund is a very minor piece of social policy both in terms of resources (£1.3m over the years 1973 to 1978 inclusive) and of impact. The justification for a detailed study of it must therefore lie partly in its novelty and partly in the fact that it provides a self-contained and manageable subject for case study in social policy formulation and evaluation, and is to Mr Bradshaw's credit that these are the features on which his book capitalises.

The fund was established in 1973 in the wake of the thalidomide affair and was to consist of two sums of £5m each "to relieve family stress" among those bearing the burden of raising congenitally (and subsequently, non-congenitally) handicapped children. The novelty was that the money, though originating in the Exchequer, was to be entrusted to and distributed by an able and competent agency in the voluntary sector rather than by central or local government. It is the only instance of central government making a voluntary agency as the instrument for the allocation of government funds directly to beneficiaries. This book tells the story of how this came about and how it worked.

There are, roughly, four strands to the book: a study of the fund as policy-making and implementation, a description of its operation including measures of take-up and consumer views, an evaluation of the effectiveness and efficiency of the fund, and a consideration of some of the problems contingent upon the exercise such as those of equity and allocation with statutory services. As a study in policy-making it suffers from lack of first-hand evidence or inside information as far as the role of the DSS is concerned, though the role of the Joseph Rowntree Memorial Trust as the implementing agency is more substantially documented. There is a nice description of how the stated aim of the fund was the result of the direct adoption and refinement of a phrase occurring in a discussion

document prepared by the trust — a situation that bears close similarity with the articulation of the goals of some urban deprivation programmes.

The evaluation of the work of the Family Fund consists largely in four parts: the extent to which it relieved stress (its explicit aim), whether it contributed to the relief of the burden of raising a handicapped child, its cost effectiveness and its success in filling the gaps between the attendance and mobility allowances, the exceptional needs payments of the supplementary benefits system and the patchy fulfilment of local authorities' obligations to the handicapped and disabled.

The harder problem in the evaluation of social policies is to discover precisely what a programme or policy is supposed to do and then convert what is often grandiose rhetoric into something measurable. Mr Bradshaw is very frank in taking the politicians at their word and measuring the extent to which the fund "relieved stress" (literally) as measured by a malaise inventory. It is hardly surprising, given the casual way that this goal was adopted for the fund, that little evidence is found that it achieved it. Certainly there is evidence, as subsequent chapters show, that the fund did relieve some of the burden of raising a handicapped child (through the provision of washing machines, spin-dryers and grates for clothes, bedding, transport) and most beneficiaries were grateful for the help given. But what this study illustrates (in common with other recent evaluations of specific programmes) is the yawning gap between what the politicians say are the purposes of social policies and what the policies actually do or can even hope to do. Like the urban programme (another initiative with rather grandiose aims and limited resources), the Family Fund, as Bradshaw points out, is an excellent mechanism for handing out small amounts of material aid by way of supplement or compensation, and the only sensible criteria of success are whether the benefits are distributed fairly and with reasonable cost-effectiveness.

John Edwards

John Edwards is lecturer in sociology at Bedford College, London.

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Engineering: FINNISTON AND THE FUTURE

The future of engineering education, and by extension perhaps the future of British manufacturing industry, has become the subject of lively debate within higher education following the publication of the Finniston Report earlier this year.

During the summer THE ES arranged a round-table symposium to discuss the report and its implications. The day-long discussion was chaired by Sir Geoffrey Allen, chairman of the Science Research Council, and covered the following topics, the pros and cons of registration, the length and content of the undergraduate curriculum, continuing education and the

responsibility of industry, the distinctiveness of the technician engineer, and the contribution of the schools. The other participants were:

Mr John Bartlett, a civil engineer and a vice-president of the Institution of Civil Engineers.

Professor Alec Chisholm, professor of mechanical engineering at Salford University.

Sir Hugh Ford, Pro-Rector of Imperial College, London.

Sir James Hamilton, Permanent Secretary at the Department of Education and Science.

Professor G. R. Higginson, professor of

Engineering Science at Durham University and chairman of the UGC technology sub-committee.

Professor John Horlock, vice-chancellor of Salford University and vice-chancellor designate of the Open University.

Mr Philip Hughes, a director of Logica, the computer software company.

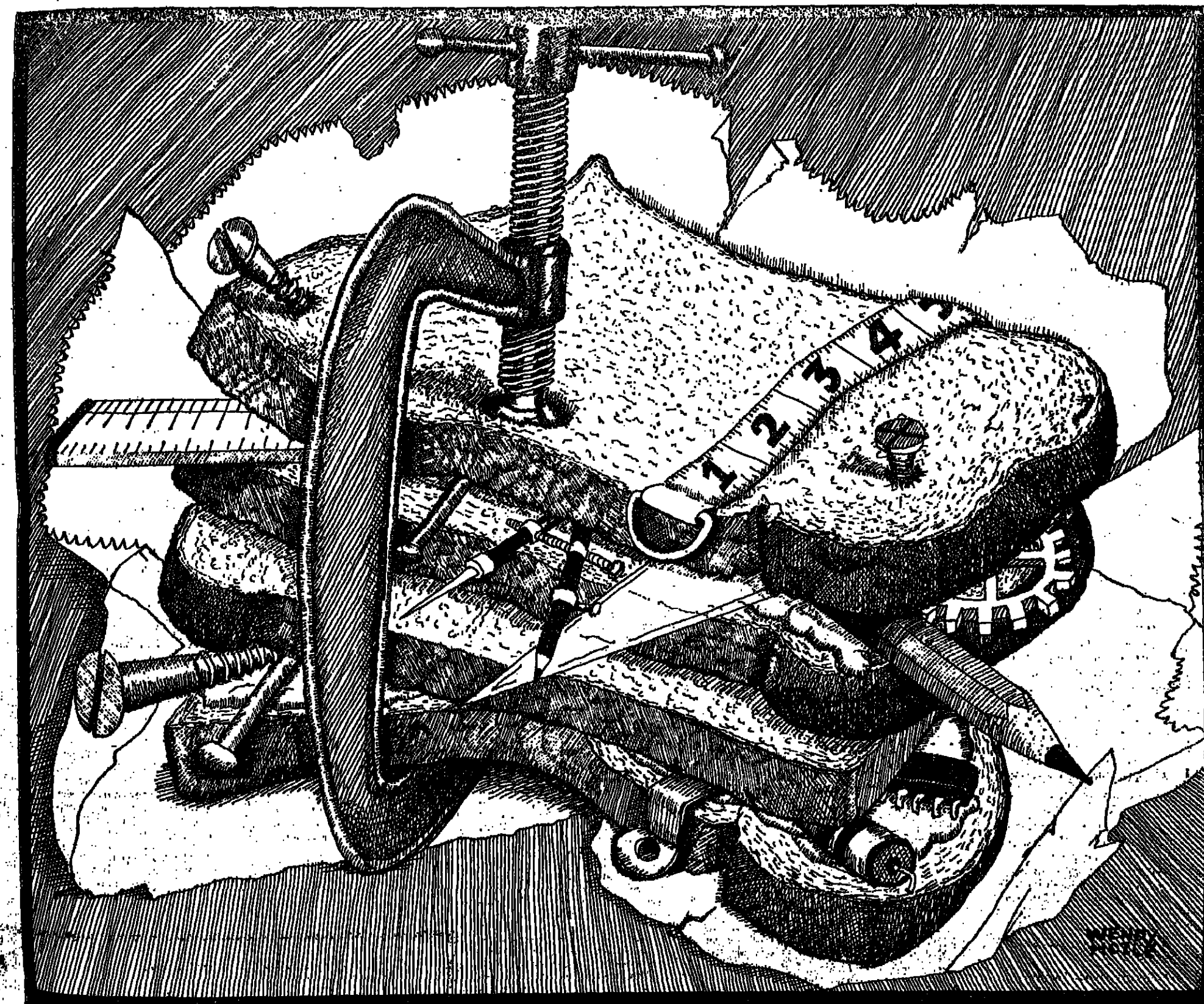
Professor R. C. Smith, professor of electronics at Southampton University and chairman of the Conference of Engineering Professors.

Mr Alan Thompson, then Deputy Secretary at the DES.

The discussion was taped and a transcript made.



SIR MONTY FINNISTON



Registration and professional competence

Sir Geoffrey Allen, Chairman, shall begin the discussion by talking a little bit about the sort of qualification-recognition that one expects to develop over the next decade — in professional engineering. Perhaps we could start on this issue of registration, on what people feel, and then go on to how this will be

reflected in terms of training of engineers by individual courses first of all. Hugh, you have been in the game a long time. You have been dealing with academic engineers and you have had a lot to do with the mechanical engineering industry. Would you like to begin by developing, as you see it, the need for the national recognition of engineers, or perhaps the need not to?

Sir Hugh Ford: I think that having arrived at this point with Finniston and the searchlight on professional engineers, some more formal recognition and registration of engineers, particularly in manufacturing industry, is required. That is a general statement. I believe that some registration should be at that point at which the engineer has demonstrated competency to practise, by which I mean not only a systematic and well-organized education and training as one passes

but also some years of experience and work supervision prior to being acknowledged as then able to practise freely under the registration or whatever it may be that is set up in other words, I favour registration at what is recognised as a chartered engineer level, rather than on the training and education level. I say this not only from the point of view of many years of teaching engineering, but of service to industry in decision-making and so on.

But I believe that there are aspects of engineering activity which we cannot teach in universities, and which are not entirely covered by a training course in industry, however good and however well-structured it may be. So I think there are three ingredients required for registration. That is the first point. I should like to make a statement. The second I should like to make is that, believe me strongly that, which, thick sandwiches, the four-

year courses in which there is intended to be close involvement with industry, and any own total technology project in which we have developed a very close relationship between certain companies which are competent to do this and ourselves in a one-three-one and now with the four-year courses a one-three and a half and a half type of course, this is needed in the development of these engineers.

The problem in this is that industry is not geared up to cope with the total number of engineering students who require to go through such a course. This is where the main attention is needed. Industry will collaborate well with you, but they have got many other interests and many other objectives and unless you are constantly at it you do not get this total integration.

continued on page 11

FINNISTON AND THE FUTURE

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FINNISTON AND THE FUTURE



Chairman: Could I pick up two things there. First of all you have reminded me that of course there is one outfit in the United Kingdom that has a superb continuing education system and that is the GCEC. But it does not have it there so much because that is the way progress through the hierarchy owes its existence to the network and the fact that they are continually having to update the technologies in the various local boards. So that course that it helps with promotion as well but the main motivation there is to have uniform competence in technology across the whole network.

Hamilton: If I could just develop that a little, I spoke about incentive for the individual and the Institute for the individual. I think the system is a system with an institution incentive, which has a side issue, almost possibly an individual incentive. But my concern is that we have not got a very powerful system of incentives for continuing education.

Chairman: I think that is something we have got to change.

Hamilton: I suspect that that lack of incentive applies individually and institutionally.

Chairman: Yes. Except possibly for Philip's industry, where only the Japanese industry is the force that moves you through the system.

Hughes: Yes, because it moves as fast they are more likely to get on the spot than outside.

Chairman: Yes.

Hughes: I have lost the reference, but there was a reference to that system in France whereby the individual has a right to go away and a right to have a certain number—up to 500 hours or something—paid. I wonder if the committee could consider this carefully and then reject it.

Chairman: Do you really believe that legislation can cure?

Hughes: But what did you feel of the French experience?

Harlock: I think probably when you think of these government committees, as you mentioned, and recommendations, there is one recommendation which is a 100 to 1 shot, "a flyer", and that was probably it. This was the recommendation that engineers should have the right to take sabbatical leave, a statutory right to paid study leave.

Hughes: An interesting idea.

Harlock: But really it was related to that.

I think, to one of the things that we have not discussed very much, and that is, are you going to do anything about the British industry is going to end in 10 years time unless we get cracking. You can plant all these marvellous schemes for formation, but what do you do?

Chairman: Let us look at what you enter short courses; which is obviously not an integral part of continuing education. We have a lot of short courses now. You could say, given that network, we have a teaching time, and the universities tend up to the end of the day do not think there is a shortage.

Chisholm: I think we have to be very careful that we do not get into a very enthusiastic attitude about creating the network, and that the industry might have a wonder that it is not there.

data, whether we have some really good solid evidence on the actual take-up and utilization—effective utilization—of the short courses we already have. I am inclined myself to think that we should make every effort to ensure that we meet an accurate number rather than the needs of that industry. The industry is strongly biased by the skills which we can deploy. I suspect—and this is part and parcel of our need to change the orientation of engineering schools—that we need to develop a whole new set of attitudes and skills for the activity areas of industry. I was immediately a little bit suspicious when you referred to technological topping up because this may not be the most crucial need, unless you interpret technological" very broadly.

Chairman: No. I would interpret very broadly. I would even give you comfort in that the first thing we have done is to get the industry and employers were offering what the course gave rather than what industry wanted, and this is the point at which we began to try to develop new courses to find out what the firms wanted.

Chisholm: This is another very important reason why we should seek to change the character of the engineering schools.

Chairman: Indeed. Absolutely. And I think this is the major thing wrong at the moment—there is a lot of teaching being done and a lot of people coming on to courses who are not really directed as well as they ought to be.

Chisholm: There is the danger of the United States has said a lot about the social mobility which exists in the United States, as the all go for their MS degree and their higher qualifications, regardless of their utility.

Hamilton: Let me be clear. When I talked about what Alec has called the social implications I was not talking about A-levels. I was talking about people who were garage hands about being the equivalent of the TEC award in internal combustion maintenance—that kind of thing. John Horlock rightly asks what do we do on Monday morning, say, I think of two A-levels. I was talking about, relevant to Monday morning. I think that, although I agreed with Philip Hughes, that some of the objections to "courses being set up in that kind" he wants very strongly, some are still being made, that one of the first things that has to be done—and we have to do it—is to look at the regulations covering these to see that we are not actually putting impediments in the way of people. I agree with all that has been said about not setting up "phone courses" just because the academic institution thinks it might like to do them, but there is a lot of interesting work being done simply to set skill and let them proceed in what will be a very old-fashioned, or do we want I am not very sure whom I mean by "we," but I think it is a combination of SRC, the Government, the industry—any of them—who are doing very well in this area. What is it that all three of us agree has to be done more to improve the performance of a British industry?

point of view he felt the prominence of these super technicians or what ever you care to call them—"technician" is not a word that Alton John would like to associate with this group—but these people were in shorter supply, were the graduates that formed the main part of the Pinniston dialogue, and

about that. I think it is to do something for the little group that James was talking about. I think we had discussed this, and although we started the ball rolling, nothing seems to have come of it. I think we have to get to the point that we got divided by the Education Report, but I think we have to be diverted by the problem of resources for polys, because we are playing it pretty firmly at the pole with a few technological university departments.

Mr. Thompson: So far as the role of the Technicians, I suppose one had planned for the Technicians Education Council to develop an appropriate range of courses, both full-time and part-time, extending from the ordinary level up to the higher level, and to make the progress has been rather slow, for various reasons. I think, which we need not go into. They got a bit bogged down as a kind of root and branch approach to the whole thing, instead of just on growing points, seeing what was the most serious certificate or national diploma course, and choose to start remodelling that thing and issuing new models, which held everything up. They also decided to start from the bottom, as it were, to get the ordinary level right in terms of new models before moving on to the models for the higher level. This has been a very slow process. The engineering industry have not helped by being very divided amongst themselves as to whether they were going to support this kind of thing or not. It is still a bit of a problem.

Chairman: Yes. Earlier we talked about continuing education, particularly.

Chisholm: I wonder if it is ex-

gent to say "Arc we in a situation similar to one that Britania was in in 1860 when, for lack of an elementary education system, we were producing a large number of unskilled competitors had for manufacturing and the engineering industry?" Arc we in a situation now where the second secondary education system just does not produce the stream of people who are prepared to and are prepared to do the moment and training as technicians?"

Thompson: I think really we have not made up our minds in this country how technicians should be produced. Arc they to be produced as a by-product of the employment process or are they to be produced by taking someone on as an apprentice and training him, or seeing his trainee develop as he goes, or are we going to produce them the same way as we produce our technicians, by seeing them through the process of full-time education? I think this is the real trouble.

Chisholm: The latter would be the way we ought to move, but it is still doubtful whether it will be done enough to supply the country with the necessary skilled. The contribution of the secondary schools is vital, yet a weak link.

The problems begin at the root of the nation at large that it is not, if I am to believe the government itself, rather than some of the people. It is not the people who are to be coped with, but the country as a whole. To improve its performance, it was to establish the development of manufacturing as the central objective of its policy, then we might get a very significant change in the country. The government to me to be the most effective engine of change that could be devised. To create an engine of change whose job is to influence government is to undermine the cabinet government should be at cabinet level where our complaints have long placed it.

I might add that the reservation about the acceptance of the mass thrust of Plimston from quarters do not help. So many bodies seem to be solely concerned with their own level of interest, not concerned with the message chapter one of the report.

Chairman: But from what you are saying you could argue that what you are pointing to is the fact that the government has intervened

Chisholm: I would say the reverse.
Chairman: Yes. But on the other hand there is no doubt that with you had lived companies guided so on they looked at training of their people and there was a vested interest in supply of manpower for their industry.
Chisholm: In England, you mean?
Chairman: Yes.
Chisholm: On the continent, yes. So the guilds were not allowed to compete with the national capital determination to grow and that the manpower and the army required were produced by the economy.
Chairman: Philip, you wanted to say something about schools.
Hughes: I agree with the disclaimer that the English Committee does not think I have got any new ideas to offer in this respect, do, however, feel strongly that directly at the source; that if we do not get people in the schools doing everything else, we are going to do it, it will be a full-time job to do. It's an argument, however as you start by saying it's clear, and do you start at the source, do you start by suggesting at the top of the pyramid by the Prime Minister

Chairman: We have got too many mathematics in the universities and mathematics in the universities anyway. You could shed a few of those along as you shed some good ones. The trouble would be worse. I think we could pull up the bottom end of the ladder, rather than have a differential; have a shorter scale ranging from 1 to 100,000. The danger I would come at the beginning of the end, I think, as you could go some way to solving this problem, letting pass the student support system is better than the student support system. Chairman: In a sense they get less than . . . students. Thompson: You could introduce the differential at the level of a professional day. Would that be a professional day. Would that be a professional day.

moment they graduate they have got a choice. The Australian system of paying them to go into university and then to go out into the sticks and so on and teach in country places—they do that—paying their bursaries as they go to college, and of course what happens is that they do their whole university in the backwoods and

stick there. I think pay is the simplest way of getting them in.

Thompson: The argument against differential pay is largely that it is unfair, with a restricted pool of people. There are only so many people. There are only so many teachers. There are only so many who are going to industry. There has been going for some time a competition for the best people. The best people are in a position to be readily impoverished in terms of people doing mathematics and science. What happens if you try to introduce a pay differential? The best people will not think you can introduce a differential of so small a size to make it impossible for industry to find it. It might only matter \$400 a year. It might be \$400, but if industry wants those chaps it will pay and they will get them just the same, and one will have introduced this pay differential for teachers to stick.

'One ultimately comes to this problem of what to do in schools, because in the long term one has to get that right.'

continued on page 2

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No stamp is required.

BOOKS

Bringing societies up to date

The Sociology and Politics of Development: a theoretical study by Baldev Nath Varma
Routledge & Kegan Paul, £9.50
ISBN 0 7100 0428 1

This book is not about development as its title promises but modernization. That may sound like a quibble, and it is admittedly hard to disentangle the concepts of industrialization (a technological approach emphasizing the shift from agriculture to industry); development (a sustained tendency to economic growth, conventionally measured in GNP terms); and modernization (a particular approach to understanding the major social changes involved in industrialization and development, especially in the later-industrializing low-income and middle-income countries of the world, which have hitherto called the Third World).

According to the modernization school of thought, both societies and individuals pass from tradition through a transitional stage to modernity. "Societies" they characteristically confuse with "countries", but just as we have seen in England is confused with Britain or the UK and the distinctiveness of Scotland and Wales is overlooked, so it seems even more important to distinguish between, for example, the society and culture of the Yoruba and the one and the national institutions and life of Nigeria on the other. Most Third World countries, indeed, comprise

bewilderingly diverse societies in this sense of the term, while some societies, such as that of the overseas Chinese, transcend the boundaries of several countries. In this school of thought, modernization starts at different dates and proceeds at different rates, so that at any time all countries can be arrayed along a scale of modernity; and much the same can be said of the individual people who compose these countries. Modernity in countries, or societies, is viewed at least as much in political as in economic terms, as the building of a nation-state with a common language, universal citizenship, and institutions commanding the loyalty of its people, able to hold up its head in the world. Modernity in individuals, often contrasted with a fatalistic outlook, is characterized in such terms as a need for achievement, self-reliance, a conviction that the world can be changed by human effort and ingenuity, and that enterprise, initiative, and leadership are valuable qualities in the making of rational choices and decisions.

In the central chapters Professor Varma draws together the ideas about modernization which are common to different social science disciplines, especially in the United States. He shows how the theories of modernization, stemming most strongly from the work of Talcott Parsons, accord with leading ideas in economics (such as those of Rosalind and Hagen), economic history (Rostow), political science (Almond), anthropological theories

of modernization (Redfield), social psychology (McClelland), and studies of the mass media of communication (Lerner), perhaps the founding father of the whole modernization school. He usefully distinguishes, too, between the difference which modernization theory assumes according to whether it is used as a mobilizing ideology by the leaders of a developing country, or is regarded as a social science theory with explanatory value, or serves as a guide to social change agents, activists such as business men, teachers, and agricultural extension workers, in the field.

On the whole, Professor Varma accepts the modernization perspective and does not do justice to the controversies that have raged around the concept in recent years. In so far as political modernization is taken to mean emulating the United States, the whole theory has been attacked, at best for ethnocentrism, at worst for cultural imperialism on the part of American scholars. Equally, to characterize low-income countries as backward, and to attribute their backwardness to a lack of people with initiative, has been resented as disparaging and patronizing. In reaction theories of underdevelopment and dependency, blaming the rich countries for their alleged exploitation of the poor, have been enjoying much popularity of late. So a rehabilitation and defence of the modernization approach would have been more timely than simply the lucid summary Professor Varma presents. Better still would be a

synthesis, perhaps along lines partly adumbrated by Bendix, giving fuller weight to the international level of analysis, while accepting that for many purposes the country (for example, Nigeria) is the appropriate unit for consideration, and accepting also that the tenacity and importance of ethnic and cultural diversities within countries make the society in the case of the country (for example, Yoruba society) the appropriate unit at a third level of analysis. Although the compilation of sources is wide and scholarly, there are few citations later than 1970, and there is a curious tendency to refer to early research reports or symposium papers by leading workers in this field (for example, Inkeles, Riggs) and not to the books in which they made their definitive contributions. Professor Varma comes across as a humane and sensitive man, and his opinions on the great issues of freedom, equality and justice will command the respect of all persons of goodwill, but they do not really amount to a contribution to social science. The later chapters are not of the same quality as the earlier ones. The book, and Professor Varma's failure to show convincingly how social science theories can help to guide policy decisions. "Modernization for what?" is a good question which deserves a better answer.

J. E. Goldthorpe

Dr Goldthorpe is senior lecturer in sociology at the University of Leeds.

Narcotics agents

The Narcotics Game: organizational and informational limits on drug law enforcement
by Peter K. Manning
MIT Press, £10.85
ISBN 0 262 13154 4

The politics of access to police organizations means that researchers are usually deflected downwards to observe the behaviour of patrolmen on the street. Sociological policy formation, and decision-making, have rarely been studied; and specialized units effectively escape scrutiny. No study of detectives has yet emerged. Peter Manning's book is a study of the police hierarchy, permitted to be in the police, and speculation (it is hoped that Tony Jefferson's study of a large urban force in Britain will help to illuminate the work of senior personnel). Peter Manning has made something of a breakthrough in gaining access to two specialized drug enforcement units.

Earlier, in *Police Work*, Manning compiled his own papers in a work which was stimulating and wide-ranging but which was also sometimes messy and even confusing. His new book has a definite consistency, and a coherence of style, which makes it an impressive contribution to the sociology of the police (and more broadly to the sociology of organizations). Above all, *Narcotics Game* is a devastating portrait of the uncoordinated shambles of daily routine policing in the controversial area of drugs enforcement.

In the United States drugs have inspired sweeping legislation, massive financial resources, and the arrest of young people in 1976 on marijuana charges, with many state and city police agencies developing specialized drug units. Manning has studied two of these, using observation, documents, and interviews, focusing on the informational and organizational constraints upon drug policing. The federal Drug Enforcement Agency pursues major violators with undercover agents and substantial buying power on the street; level three arrests on drug-related charges are carried out by patrolmen. What, then, do the "narcos" do?

In practice they may do "very little": in the units studied the men spent a great deal of time leaving their desks to check their feet on desks waiting for a phone call from an informant. More crucially, their reaction to the lack of written directives, low supervision, and vaguely defined aims was to employ their

own discretion, and make law on an ad hoc basis through personalized, intuitive decisions. This is probably true of much enforcement of "victimless crimes" where it is up to the police to drum up business but Manning argues that, with drugs, cases are infinitely expandable up or down the dealing hierarchy. Documentation of unsuccessful cases was found to be the most universal neglected and was fragmentary even with successful cases; this means that supervision was difficult, much decision-making was invisible, and there was a heavy reliance on personal discretion and protective relationships with informants: "the aggregated discretionary actions of individual officers set the policy in these units". The notion of a "case" was pivotal and most cases developed entirely at the discretion of the individual agent. Faced on the one hand by government concern and public pressure and, on the other, by lack of information about the market and the actions of major dealers, it was an ordinary detective, arbitrarily selected and with no special training who resolved higher level insecurities and dilemmas by deciding when to raid, who to arrest, and who to charge.

Manning gives us a tight, convincing picture of the working world of narcotics agents which is an ethnography and part organizational analysis. He describes convincingly the shift from the dreary to the dramatic, the casual, poorly coordinated style of mounting raids, and the generation of activity as a means of countering boredom. The ethnography is restrained, almost disappointingly so (the same over the question of corruption), but this is a welcome feature of the book which provides us with a clear, cogent example of the negotiated order of one specialized segment of the police organization. Manning presents a theme with vigour, industry and insight, and his book deserves a wide audience.

If the "crisis of capitalism" leads to a more repressive state apparatus, it is difficult to see from Manning's evidence precisely how the mechanisms for this process are institutionally articulated. Socio-political elites may have furnished specialized units in key enforcement areas, but relatively low-level personnel make the policy day-to-day, discretionary decisions which were not documented and were not reviewable and were based on the norms of good detective work.

Maurice Punch

Maurice Punch is professor of sociology at the Netherlands School of Business at Bruckelen.

Unnecessary knowledge

Marx and Mead: contributions to a sociology of knowledge
by Tom W. Goff
Routledge & Kegan Paul, £7.95
ISBN 0 7100 0464 8

The sociology of knowledge often appears as an esoteric and remote intellectual specialist far removed from the real world. This book demonstrates that, on the contrary, its concerns are practical: its aim is to show how people are oppressed by uncritically accepted ideas which do not serve their needs. Goff's main concern is not to relate the ideas of Marx to those of Mead, but to show how elements of their thought may form the basis for a critical sociology of knowledge. His succinct text conveys a sense of purpose and demonstrates considerable intellectual agility.

The key concepts in Goff's discussion are, from Marx, praxis and alienation, and from Mead, reflexivity. Praxis refers to material reality as the active, conscious relationship of people with physical nature, and thus unifies the material world and consciousness of it in practical activity. It is through the use of this concept that Goff is able to steer through the thorny problem of relativism—the problem that the sociology of knowledge, in its claim that knowledge is relative, is itself subject to the same relativism and is thus refuted by its own logic. In terms of praxis, knowledge is seen in terms of its adequacy for fulfilling human needs, not in terms of its correspondence to some external criteria. Goff thus presents a well-argued critique of the positivistic approaches to the sociology of knowledge based on the principles of the natural sciences. Reflexivity indicates his potential to develop knowledge that fulfils and develops his needs, but it is through alienation that people persist in uncritically and unreflexively accepting ideas which do not serve their needs, but it is through alienation that people are falsely conscious.

Considerable effort is put into making the ideas of Marx and Mead seem compatible, but it is Marx who makes most concessions. There is a brief mention of Mead's neglect of issues of social structure, conflict and power, but this does not pose much of a problem, because Marx's concern with these issues is largely ignored. It is only the early, philo-

sophical work of Marx that is included, and the emerging synthesis is phenomenological and idealistic. It is not a question of whether Goff has presented a "correct" account of Marx's views, for this is not his purpose, but he does seem to have disregarded important aspects of Marx's thought—such as social classes, means of production and modes of production—which really are necessary for the sort of critical sociology of knowledge that he wishes to develop.

Inevitably, a work concerned with the influence of ideas on human relationships and human development is bound to emphasize the role of ideas. Here, however, the emphasis surely goes too far. The very concept of praxis, supposedly revealing the unity of consciousness, human activity and the material world, seems to refer ultimately to a set of ideas about the world.

Praxis therefore constitutes a "phenomenological" description of reality-for-man, presumed to be stripped of all ideological presuppositions (page 29). Activity and the material world seem to be subsumed under consciousness. Despite the claim to prevent a framework which would enable people to transcend unreflexive and uncritically held abstract ideas which do not serve people's needs, the book's very framework seems to be founded on such ideas. Notable among these are the woolly, theologically derived concept of alienation and a pervasive sociological view that the major limitations on human development are social constraints, or, as it would seem sometimes, social belief systems, rather than economic or material restraints of power. But peasants are poor, generally, not because they accept the ideas of those who oppress them, but because they lack the resources—especially land—for an adequate life. It is not clear how freeing such people from false consciousness and alienation would serve their needs, or indeed, whether they are falsely conscious in the first place. Goff's critical sociology of knowledge has little to offer in terms of its needs, but it fits more closely the needs of discontented western intellectuals. As for the rich and powerful, I thought it was an earlier lesson of the sociology of knowledge that their ideas about the world do serve their needs, though perhaps at the expense of those of others.

David Berry

David Berry is senior lecturer in sociology at the University of Cardiff.

Goffman

The View from Goffman
edited by Jason Ditton
Macmillan, £15.00
ISBN 0 333 24524 5

Perhaps the time has come to sociologists to come clean about the Goffman enigma. The man himself has been steadily researching and writing for over 30 years yet the contents of his sociology, despite numerous acknowledgements, remain obscure. In a career which has spanned the development of many of the major movements in sociology, Goffman has sought no affiliations and generally mentions major schools of thought only to tasterily dismiss them. During a period of intense methodological self-scrutiny, doubt and schism in the social sciences, he has continued to work with his chosen materials—ethnographic notebooks, photographs, the driftwood of new life—with no visible discomfiture. A decade which has witnessed the end of the end of ideology, Goffman persists in his meticulous analysis of moral rhetoric. He has never found, nor founded, a "school", he never replies to critics.

This absence of response (barring one institution) to his sociological movements, trends and fads is undoubtedly contributes to the mystique which one can detect in reactions to Goffman's output. Although readable, Goffman is difficult to teach, difficult to place in context, and difficult to discover his "voice". A further complication is that despite, or because of, this disengagement from the tide of mainstream sociology in sociology, Goffman is probably the best known and most widely read sociologist alive.

In one respect, however, Goffman's work is entirely unambiguous. Throughout his corpus of writings he has sought to initiate and develop the naturalistic study of face-to-face interaction. In doing so, he has drawn on many theoretical traditions in both sociology and neighbouring disciplines and integrated them within a framework which is economical, coherent and singular. As tools for his task, Goffman has united an exceptionally rigorous and fertile conceptual ability with observational and creative capacities which are photographic in their precision and control. These abilities find their expression in elegantly crafted, grammatically essays in which overt theoretical "weightiness" is consistently sacrificed to style.

The present volume is intended to unpack the substance of Goffman's work in a generally accessible style and, more generally, to help students with the Goffman enigma. It contains two substantial expository essays and a number of more angled commentaries. Randall Collins usefully describes Goffman (the Chicago School tradition, Durkheimian sociology, anthropology, game theory and phenomenology) without quite exceeding in his aim of displaying the nature of Goffman's theoretical contribution. Robin Williams, in a model chapter, gives a wonderfully succinct account of Goffman's approach to conversational analysis. Among the commentaries, there are discussions of Goffman's frame analysis, his view of the sociology as representative of a style of writing. There is also a chapter identifying Goffman's "lumpen bourgeois class function" which the author reassures us will turn out alright in the end. The history is allowed to volume is a way, the Goffman enigma is not rather than a cure. It does not succeed because the commentators who have a good grasp of Goffman do not establish sufficient distance from his work, with a few exceptions tend to have subjective and ungrounded views. We shall have to wait, it seems, for more developments in the rapidly developing empirical fields which Goffman has played such a leading role in establishing before his "contribution" can be securely evaluated.

John Heritage

John Heritage is lecturer in sociology at the University of Warwick.

NOTICE BOARD

Grants

Aston
Applied psychology—Dr J. Patrick Burgen—£17,160 from the Grant Makers Federation for their research on consumer training Project; £17,500 from the Department of Education for research on the training of industrial and commercial personnel; £17,500 from the Department of Education for research on the training of industrial and commercial personnel; £17,500 from the Department of Education for research on the training of industrial and commercial personnel.

Geology: The Natural Environment Research Council has awarded a grant of £33,734, over a period of three years, to Dr J. Macdonald in connection with his research into the physical processes of sedimentation in lochs.

Pathology: The Leukemia Research Fund has awarded a grant of £12,500, over a period of two years, to Dr J. B. MacGillivray and Dr M. Paed to undertake an investigation of the genetic component of Hodgkin's disease. The Scottish Home and Health Department has awarded a grant of £9,814, over a period of two years to Professor J. Swanson Beck and Mr A. MacConnachie.

Pharmacology and Therapeutics: The Scottish Home and Health Department has awarded a grant of £17,562, over a period of two years, to Dr D. J. K. Balfour to assist his studies on the properties of hippocampal nicotine receptors.

Social Administration: The Social Work Service Group has awarded a grant of £5,384, over a period of six months, to Miss R. Morrison in connection with her research into voluntary social services for the deaf. The Manpower Trust has awarded a grant of £20,723 to Dr D. Rex Billingham (Community and Occupational Medicine), Professor R. W. Harden (Medicine), Professor A. M. Macdonald (Medicine), Dr Alan Presley (Psychology) and Dr William Watson (Medicine) to examine the problems of stress for the patient and family during treatment and return to work following a heart attack.

Essex
£41,133 from the Science Research Council to Dr C. Scatchard of the Department of Biology for research into two interrelated regulatory systems in *Aspergillus nidulans*.

Dundee
£32,817 from AEG Telefunken to Professor J. Turner of the Department of Electrical Engineering Science for a Beam Indexing display research and development contract.

£27,911 from Cable and Wireless Ltd to Dr B. C. Evans of the Department of Electrical Engineering Science for a real time technology course.

£18,850 from British Shipbuilders to Professor G. C. Chaplin of the Department of Electrical Engineering Science for a Prototype noise cancellation system for a container ship powered by a Daxford engine.

Appointments

London, Goldsmith's College
Lecturers: Dr J. Brayton (communications studies); J. C. Cameron (production, Laban Centre); Dr J. R. Donison (mathematics); Dr S. W. McVeigh (music); Dr N. Nelson (social anthropology); Dr C. Ramuzanoglu (sociology); Dr A. Sugden (mathematics); C. Tulloch (community and youth work); Dr G. B. Young (chemistry); D. G. Burnard (part-time jazz and popular music); Miss R. Coward (part-time communication studies); R. L. Parker (part-time mathematics).

Manchester
Manager of Oak House: S. P. Robertson. Manager of Quaker Park: V. W. J. Keating. Programmer in the administrative computer unit for the Registrar's and Bursar's Departments: W. S. Woolley. Appointments in the Regional Computer Centre: Administrative Officer: G. A. Bent. Computer Officer: Janet M. Rothwell. Senior Computer Officer: A. K. Miso. Programmer: P. E. Chetnam, S. H. Cleverley, P. M. Devine, Elizabeth M. Walker. Senior programmer: John Foster.

Assistant Keeper of Ethnology in the Manchester Museum: H. H. A. Banks. Administrative Assistant in the Central Services Unit for Careers and Appointments: S. P. Pickman. Director of Medical Illustration: R. E. S. Ing Building, Exhibition Road, London SW7.

Overseas
The University of Sydney has appointed Dr Philip Ley, Reader in Clinical Psychology, Plymouth Polytechnic, to a chair in psychology. In 1977 Professor Ley came to Australia to take up a position as reader in clinical psychology at the University of Queensland and in 1978 was visiting expert consultant to the US Public Health Services Food and Drug Administration in the same year he joined the Plymouth Polytechnic as Reader in Psychology. He has specialized in the study of communication problems between patients and health-care personnel, including doctors.

General
The new members to the Natural Environment Research Council are Professor M. G. Audley-Charles and Professor J. L. Monteith. Professor Audley-Charles, of Queen Mary College, is a natural geologist. Professor Monteith is Professor of Environmental Physics, University of Nottingham, and President of the Royal Meteorological Society.

Mr Watland Mackie has been appointed a new member of the Agricultural Research Council. Mr Mackie is a consultant to Agricultural Management Limited and a Director of Farmdata Ltd, an agricultural computer software company. He is also a member of the Board of Directors of the British Disease Research Association and a member of the Scottish Agricultural Development Council.

Forthcoming events
"Directions in Computer-Based Learning", a meeting organized by the SE branch of the Society for Research into Higher Education, will be held on November 1 to 2. Participants include Professor Nick Rushby, director of the CEDAR Project, will give the talk which is to be followed by a discussion covering the applications of and implications of microcomputers and microelectronics. Details from the Mechanical Engineering Building, Exhibition Road, London SW7.

"Political Commitment from a Philosophical Viewpoint" is the subject of the first colloquium of the SE/SEF-Par/London Group in Political Philosophy, to be held in Leiden, from November 1 to 2. Participants include Professor Alan Montefiore, lecturer in philosophy and fellow of Balliol College, Oxford. Further information from Mr Montefiore at the college.



Rustan shooting Isfandiyyar in the eyes with his magic locked arrow: one of the exhibits in "Persian Painting in the Fifteenth Century" at the British Library, London, until March 2, 1981.

Chairs

Dr Rodney Harris has been appointed to the chair of medical genetics at the University of Manchester from October 1, 1980, in lieu of his present appointment as reader in medical genetics and lecturer in medicine. Dr Harris has been responsible for the creation of a Tissue Typing Service and was a member of the Department of Health and Social Security Sub-Committee on Transplantation Immunology. He is a member of the Council and honorary treasurer of the Clinical Genetics Society of the Medical Council of Physicians.

Open University programmes October 11 to October 17

Saturday October 11	Sunday October 12	Tuesday October 14	Wednesday October 15	Friday October 17
16.40 Geochemistry: The Synthetic Diamond (8.2.2) (prog 1)	16.40 Geochemistry: The Synthetic Diamond (8.2.2) (prog 1)	16.40 Geochemistry: The Synthetic Diamond (8.2.2) (prog 1)	16.40 Geochemistry: The Synthetic Diamond (8.2.2) (prog 1)	16.40 Geochemistry: The Synthetic Diamond (8.2.2) (prog 1)
17.15 Alternative broadcast for Radio Scotland and Radio Ulster: The Floating Question (A201) (prog 3)	17.15 Alternative broadcast for Radio Scotland and Radio Ulster: The Floating Question (A201) (prog 3)	17.15 Alternative broadcast for Radio Scotland and Radio Ulster: The Floating Question (A201) (prog 3)	17.15 Alternative broadcast for Radio Scotland and Radio Ulster: The Floating Question (A201) (prog 3)	17.15 Alternative broadcast for Radio Scotland and Radio Ulster: The Floating Question (A201) (prog 3)
17.40 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	17.40 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	17.40 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	17.40 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	17.40 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)
18.00 Mechanics and applied calculus I (M2722) (prog 1)	18.00 Mechanics and applied calculus I (M2722) (prog 1)	18.00 Mechanics and applied calculus I (M2722) (prog 1)	18.00 Mechanics and applied calculus I (M2722) (prog 1)	18.00 Mechanics and applied calculus I (M2722) (prog 1)
18.30 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	18.30 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	18.30 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	18.30 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)	18.30 24.00 Renaissance and Reformation: A Portrait of Francis Bacon (A201) (prog 3)
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ROSS McWHIRTER

1980 MEMORIAL ESSAY COMPETITION

Prizes ranging from £50 to £500 in each of two age-groups (under 25 and under 19) will be awarded for essays on the following subjects—

Senior: "Have the Courts proved the best bulwark of our freedoms?"

Junior: "Should the powers of the police be increased or diminished?"

Judges will include: Lord Scarman, Miss Chittick, Alan Barker, Canon Graham Routledge and Norris McWhirter.

The closing date for entries is 31st December 1980, and full details may be obtained by sending a stamped and addressed envelope to the Secretary, The Ross McWhirter Foundation, 2 Lord North Street, London, SW1P 3LB.

COURSES

KEELE UNIVERSITY DEPARTMENT OF EDUCATION

OFFERS A WIDE SELECTION OF

MASTERS COURSES IN EDUCATION

MSc IN SCIENCE EDUCATION

MSc IN MATHEMATICS EDUCATION

MA IN SOCIAL SCIENCE EDUCATION

MEd IN CURRICULUM ADMINISTRATION, ETC.

Each course may be taken full-time or part-time. The department also offers excellent opportunities for research leading to MA and PhD by Thesis (full-time and part-time).

Keele is adjacent to the M6 and easily reached from Stoke-on-Trent and Crewe stations.

Applications are now being considered for October 1981 entry. SSC or University Awards are available for appropriately qualified students.

Preliminary enquiries to Secretary (Advanced Courses), Keele University, Department of Education, Staffordshire ST5 5BG.

Thames Polytechnic

POST-GRADUATE DEGREES IN HUMANITIES

The School of Humanities at Thames Polytechnic would like to extend its involvement in post-graduate work and invite graduates to register for MA and PhD programmes in English, Geography, History, Law, Politics, Philosophy and Sociology. Further details of specific areas of competence are available.

Applicants should write—giving some indication of their area of research interest—to The Head of School, School of Humanities, Room 823A, Thames Polytechnic, Watlington Street, London SE7A 8PP.

FOR INFORMATION

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Universities continued

THE OPEN UNIVERSITY CENTRE FOR CONTINUING EDUCATION HEALTH AND SOCIAL WELFARE SECTION

- a) Lecturer
- b) Research Fellow
- c) Course Co-ordinators (2 posts)

Due to the expansion of the work of the Health and Social Welfare Section, applications are now being sought for the above posts. The Section at present offers three courses: The Handicapped Person in the Community, An Ageing Population, Conflict in the Family—and a pack of materials entitled Child Abuse. The courses have been designed to be inter-professional and multi-media and education services whose professional activities bring them into contact with particular sections of the community. In addition, the Leverhulme Trust have agreed to fund an action-research project beginning this autumn. (a) Lecturer (Post No. 4135). Initially to work on the maintenance and development of the course Conflict in the Family but with some responsibility for maintenance of other courses across the Health and Social Welfare Section.

Applicants should have experience in the field of educational technology or the preparation of materials for adult learning and/or experience of work in some aspect of the education, health or social services. A good degree, relevant to the subject area, or equivalent qualification, is essential, as is a real interest in the techniques of teaching and assessing students. A diploma, or equivalent, in the field of educational technology would be an advantage. Applicants should be able to act on their own initiative. The appointment is available from 1st January 1981 for a period of 2 years. The University will favourably consider secondment from the candidate's present post. The salary scale is £5,605 to £11,575.

(b) Research Fellow (Post No. 4129). To work on the action research project funded by the Leverhulme Trust. The aim of the project is to investigate the educational and economic implications of adopting selected components of distance learning courses for use in educational programmes for which they were not primarily designed. This will include specific investigation of the secondary uses currently made of educational materials produced in the Health and Social Welfare Section of the Centre.

Applicants should have a good honours degree in a relevant subject plus experience in a range of applied research methodologies including questionnaire design and analysis, individual and group interviewing, etc., and should be prepared to take full responsibility within a team setting for assigned parts of the project. The appointment is available as soon as possible for a period of 2 years. The University will favourably consider secondment from the candidate's present post. The salary scale is £5,605 to £9,595.

(c) Course Co-ordinators (Post Nos. 4136 and 3708). These posts involve the provision of a wide range of administrative services in relation to the Section's courses and projects. These include liaison with various University departments on behalf of course teams, dealing with student enquiries, organising meetings and generally assisting in the development, maintenance and evaluation of courses. One post will be mainly related to the first instance to Conflict in the Family and the other to the action-research project funded by the Leverhulme Trust.

Applicants should have a general interest in the ways in which continuing education can be provided for adults and they should enjoy administration and have an eye for detail. The ability to work enthusiastically as both a member of a team and on their own initiative is essential as is a first degree, preferably in one or other of the social sciences. Some experience of teaching or producing educational materials would be an asset. The posts might be particularly suitable for recent graduates who are seeking an interesting development in their careers.

Post No. 6708 is available as soon as possible for three years. Post No. 4136 is available for two years from 1st January 1981. Salary is on the scale £2,795 to £8,095. Further particulars and application form can be obtained from:
Mrs J. Sage (J84135/2), Centre for Continuing Education, The Open University, P.O. Box 188, Sherwood House, Sherwood Drive, Bletchley, Milton Keynes MK3 9SE, or telephone Milton Keynes 71231 ext. 423; there is a 24 hour answering service on 833888.
Closing date for applications: 29th October.
Please give the Post No(s) in which you are interested.

LINCOLN COLLEGE

UNIVERSITY COLLEGE
OF AUCKLAND
NEW ZEALAND
ASSISTANT LECTURER
LECTURESHIP IN STATISTICS
Applications are invited for a full-time position of Assistant Lecturer in Statistics. The holder of the post will be responsible for the teaching of statistics to students in the Faculty of Science. The post is available from 1st January 1981. The salary scale is \$12,000 to \$18,000 per annum. Applications should be sent to the Registrar, Lincoln College, University of Auckland, Private Bag 920, Auckland 1, New Zealand.

LEICESTER

THE UNIVERSITY
DEPARTMENT OF CHEMISTRY
A 2-year Technicianship is available for work on the application of chemical principles to biological systems. The holder of the post will be responsible for the teaching of chemistry to students in the Faculty of Science. The post is available from 1st January 1981. The salary scale is £5,605 to £11,575 per annum. Applications should be sent to the Registrar, Leicester University, Leicester, LE1 7RH.

LONDON

THE UNIVERSITY
GOLDSMITHS' COLLEGE
SCHOOL OF SCIENCE AND MATHEMATICS
DEPARTMENT OF GEOLOGY
LECTURESHIP IN GEOLOGY
Applications are invited for a full-time position of Lecturer in Geology. The holder of the post will be responsible for the teaching of geology to students in the Faculty of Science. The post is available from 1st January 1981. The salary scale is £5,605 to £11,575 per annum. Applications should be sent to the Registrar, Goldsmiths' College, University of London, 6-10 Gower Street, London WC1E 6BT.

SALFORD

THE UNIVERSITY
COMPUTING LABORATORY
SENIOR COMPUTING OFFICER
Applications are invited for a full-time position of Senior Computing Officer. The holder of the post will be responsible for the management of the computing laboratory. The post is available from 1st January 1981. The salary scale is £5,605 to £11,575 per annum. Applications should be sent to the Registrar, Salford University, Salford, Greater Manchester M6 6PU.

EXETER

THE UNIVERSITY OF
DEPARTMENT OF GERMAN
Applications are invited for a full-time position of Lecturer in German. The holder of the post will be responsible for the teaching of German to students in the Faculty of Arts. The post is available from 1st January 1981. The salary scale is £5,605 to £11,575 per annum. Applications should be sent to the Registrar, University of Exeter, Exeter, Devon EX4 4JF.

MANCHESTER

THE UNIVERSITY
MANCHESTER SCHOOL
RESEARCH FELLOWSHIP IN
MANAGEMENT IN THE
MANCHESTER SCHOOL
Applications are invited for a full-time position of Research Fellow in Management. The holder of the post will be responsible for research in the field of management. The post is available from 1st January 1981. The salary scale is £5,605 to £11,575 per annum. Applications should be sent to the Registrar, Manchester University, Manchester, M13 9PL.

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MANCHESTER

Overseas continued

COMMONWEALTH OF AUSTRALIA AUSTRALIAN CAPITAL TERRITORY SCHOOLS AUTHORITY CANBERRA Chief Education Officer

Applications are invited from interested and suitably qualified persons for the above position. The founding Chief Education Officer, Dr Jeffrey Bourne, has accepted an invitation to the Chair of Education in the University of Melbourne from the commencement of 1981.

The Australian Capital Territory (ACT) government school system is in its seventh year of operation. The ACT Schools Authority Ordinance which came into effect in 1973 provides for an Authority to administer, on behalf of the Commonwealth Government, pre-schools, primary schools and secondary schools in the Australian Capital Territory. The Authority meets regularly to determine policy; it consists of 14 part-time members, one of whom is Chairman, and the Chief Education Officer who is an ex-officio member. The Chief Education Officer is the executive officer of the Authority and the professional head of the school system.

The ACT government system of education is based on the concept of schools being largely responsible for the development and implementation of their own educational philosophy and policies within broad guidelines laid down by the Authority and the resources made available by the Government.

The Authority is responsible for establishing and conducting schools and for ensuring that adequate provision is being made for persons attending, or seeking to attend, them. The system involves teachers and parents in decision-making at all levels. Approximately 42,500 students from pre-school to Year 12 are served by this system. There are about 2,750 teachers who are employed under the Commonwealth Teaching Service Act. Clinical, administrative and other support staff employed number about 800.

The Authority, and the educational community, look to the Chief Education Officer to provide educational leadership and to contribute actively to the development of educational policy for the ACT system. The Chief Education Officer heads the professional and administrative staff of the Authority and is responsible for implementing the policies of the Authority and for advising the Minister of State for Education on ACT matters and for the smooth and effective administration of the system.

The successful applicant for the position will have appropriate academic qualifications, professional training, administrative experience at a high level and will be genuinely interested in the particular approach to educational management on which the ACT government school system is founded. The successful applicant will be expected to take up the appointment as soon as can be arranged.

The position of Chief Education Officer is a statutory office established under the ACT Schools Authority Ordinance. It is not within the Australian Public Service although the terms and conditions are similar to those prevailing for senior officers of the Australian Public Service including allowances and eligibility for admission to the Commonwealth Superannuation Scheme. The term of office is up to 7 years with provision for re-appointment. The present salary is \$318,281. In addition an expenses and allowances of \$41,175 is provided. The salary and allowances are reviewed regularly by the Remuneration Tribunal established by the Commonwealth Government.

Further information on the position may be obtained from the Chairman, ACT Schools Authority (Cable: A.T.S.A. A62600), with whom applications marked Confidential, close on 26 November 1980.

Chairman ACT Schools Authority
PO Box 20 CIVIC SQUARE ACT 2608
AUSTRALIA

Awards

The Leverhulme Trust

RESEARCH AWARDS ADVISORY COMMITTEE
INDIVIDUAL AWARDS FOR 1981

RESEARCH FELLOWSHIPS AND GRANTS

Awards of up to £4,000 to senior persons pursuing their own investigations (but not for higher degrees or equivalent). Interest payable for 3 months to 2 years. No subject of enquiry excluded.

Applicants must have been educated in the U.K. or other part of the Commonwealth and be normally resident in the U.K. Closing date for applications (Form F/25) 1st December 1980.

EMERITUS FELLOWSHIPS

Awards of up to £5,000 a year for 1 or 2 years to persons who have recently retired or are about to reach retirement age to enable them to complete research. No subject of enquiry excluded. Applicants must have held academic positions in universities or other institutions of similar status in the U.K. or other part of the Commonwealth. Closing date for applications (Form F/26) 1st December 1980. Application forms and further information from The Leverhulme Trust, 16-18 New Fetter Lane, London EC4A 3DF. Telephone: 01-823 8881.

REMINDER

Copy for classified advertisements to the T.H.E.S. should arrive not later than 10.00 a.m. Monday preceding the date of publication.

All advertisements are subject to the conditions of acceptance of Times Newspapers Ltd.

copies of which are available on request.

General Vacancies

Could you be a teacher with a difference?

As a male or female Officer with the Royal Army Educational Corps, you will be offered more variety and responsibility than in most civilian teaching jobs.

During your first three years, your students may be Corporals and Sergeants studying for their promotion examinations.

Alternatively you may be teaching young Soldiers: teenagers away from home for the first time.

To improve their self-confidence and the Army's efficiency, we send them on Outward Bound courses and encourage them to sit GCE, ONC and City & Guilds exams.

Later on in your Army Career, you could serve on the academic staff at the Royal Military College of Science at Shrivenham or the Royal Military Academy, Sandhurst: other appointments are in Officer Education, language training or as a training adviser.

You could give career guidance and resettlement training to Officers and Soldiers leaving the Army.

You will also be given every opportunity to improve your own professional qualifications up to postgraduate level.

A teacher and an Officer.

Although we accept that your main interest is in education, we'll expect you to warm to the idea of also being an Army Officer.

After training, you will receive a commission with the same opportunities for promotion and the same levels of pay as any other Army Officer. Starting salary will be between £4964 and £7866 depending on your qualifications and experience.

Male and female teachers.

We'd like to hear from men and women who are aged under 30 and are medically fit. They will be qualified teachers or graduates or at present studying at college or university.

If you like, we can arrange for you to visit a unit near your home. It's not a commitment but a chance to get a clearer picture of Army life.

You may first want further information on pay, promotion and how to apply. A booklet covering these and many other questions can be obtained by writing to Lt. Col. C.C. Baker, BSc, RAEC, Recruiting Staff, (Dept. E12), RAEC Centre, Wilton Park, Beaconsfield, Bucks HP9 2RP.



Army Officer

Make sure of your weekly THES

The best way to be certain of your own regular copy of The Times Higher Education Supplement is to ask your newsagent to keep a copy for you every week. Simply complete the coupon in this advertisement and give it to your newsagent.

Please keep a copy of The Times Higher Education Supplement for me every week until further notice.

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REMINDER

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the date of

publication

REMINDER

Union View

Breaking the class barriers to education



Laurie Sapper

A great deal has been said by the "projectionists" about the size of the intake into universities over the next few years.

In most (but not all) cases the forecast of the number of students has been pretty well tied to demographic arguments. That is to say that since the number of 18-year-olds will rise until the year 1982-3 and then fall away, so the number of students applying for university will follow the same pattern. Hence the famous "bulge" so beloved of Shirley Williams and the level funding plans of the present Government to ensure that universities tunnel through that "bulge".

However, none of these prognostications foresee or envisage a much higher participation rate amongst the 18-year-old population. We already know that the number of women students is increasing at a far more rapid rate than men students. We know that mature students are beginning to increase in numbers and it may well be that the number of males applying in the next two or three years will begin again to grow at a higher rate than

the rise in the 18-year-old population. There is too, a growing call for short courses at university standard to meet the growing needs of industry, commerce and the public services. Last year at least 300,000 students took part in short courses run by universities and in most cases these have proved of inestimable value. Even without stimulation on the part of the Government and industry, the numbers of such courses and the numbers of students are likely to rise, throwing further weight on a level funded university system. It is therefore extremely important that even to meet the natural growth this resource pressure needs to be eased.

However, looking at the expansion mentioned above, is merely taking the passive view and the question to be posed is: "Have we, who have a stake and an interest in higher education, a duty to encourage greater participation for the children of professional families and the middle classes—even though the universities are almost helpless in this particular situation. It is not good the TUC or anyone else passing resolutions about the opportunities for children of manual workers to have a higher education when the opportunities are there but the youngsters turn away from those opportunities. These problems can be overcome. At one time the view was prevalent among all sections of the community that there was no point in giving women a higher education since they would get married, have children and any university education would be wasted (so the argument went). Although this view is still heard expressed there is no doubt looking at the increasing numbers of women now coming into higher education that a victory against that kind of attitude has almost been completely won.

This is the situation which every progressive educationalist would like to see develop in relation to children of manual workers. We should ask whether structural changes are needed in our educational system or a propaganda drive to change attitudes should be attempted so that by extending the base of our intake into higher education, we can enrich the lives not only of individuals, but the community as a whole.

The author is the general secretary of the Association of University Teachers.

AUT

Science in America

Scientists and the Presidential election



Clive Cookson

Does Ronald Reagan go in for astrology and fortune telling? Does Jimmy Carter believe, as a born-again Baptist, in the biblical version of creation, or does he accept the theory of evolution? Is Reagan suffering from a transient cerebral ischaemia, a mild forgetfulness that is one of the first signs of senility? Questions such as these are the nearest thing to scientific controversy since 1980. Presidential Campaign has offered so far. There has been no serious debate about science policy, beyond vague and contradictory promises from the Republican and Democratic platforms. So far for state of "creationism" in the Carter administration. The Carter administration has been the subject of a number of articles in the *Journal of Soliloquy* but from the Democratic side, the concern, "support by a

major presidential candidate of what has so far been a grass-roots anti-intellectual movement raises interesting questions about the extent to which it may be able to affect school curriculums in the future."

Science then got Carter to state his current view of creation. "The scientific evidence that the earth was formed about four and a half billion years ago and that life developed over the period of time is convincing," the President said. "I believe that responsible science and religion work hand in hand to provide important answers concerning our existence on earth. My personal faith leads me to believe that God is in control of the ongoing processes of creation."

Carter's response will reassure scientists who have been widespread feeling that he believed in the literal truth of the Bible. The President seems to have shifted ground during his four years in office. In October, 1976, he wrote to the *Atlanta Constitution* protesting that the newspaper "incorrectly" quoted him as saying that biblical passages such as the creation of Eve from Adam's rib were allegorical. "I have never made any such statement, and I have no reason to believe Genesis, chapter II, verses 21, 22, or other biblical miracles" candidate Carter wrote four years ago.

For most university scientists, of course, biblical beliefs are far less important than his commitment to support their research projects. No previous President has talked so much about the need to increase basic research and, whatever the Republican Party platform may say about Mr Carter's opposition to real increases in the aid to the Federal support for research has gone up in real terms under the Carter administration.

What the Democrats fail to mention is that the man responsible for starting the anti-intellectual movement in the last Republican President, Jimmy Carter, and the President who set off the previous decline was Democrat Lyndon Johnson.

know about, is that at the age of 16 large numbers of children of manual workers vote with their feet and turn their backs on the educational system. There is just at that age no desire to continue at school until 18 (earlier in Scotland), which is a prerequisite for going to university.

The reasons for this general attitude are complex and subject to no easy solution. Are these attitudes engendered in the school system itself? Should we look seriously at the front row of the classroom, the concept of sixth form colleges where the 16-year-olds are subject to different disciplines than in a school? Has the unemployment situation changed attitudes at all? These and other questions need to be asked and answered if we are to change this pattern of entry to university from children of manual workers. Until we do the universities will always be accused of a brand of elitism and of being institutions for the provision of education for the children of professional families and the middle classes—even though the universities are almost helpless in this particular situation.

It is not good the TUC or anyone else passing resolutions about the opportunities for children of manual workers to have a higher education when the opportunities are there but the youngsters turn away from those opportunities.

These problems can be overcome. At one time the view was prevalent among all sections of the community that there was no point in giving women a higher education since they would get married, have children and any university education would be wasted (so the argument went). Although this view is still heard expressed there is no doubt looking at the increasing numbers of women now coming into higher education that a victory against that kind of attitude has almost been completely won.

This is the situation which every progressive educationalist would like to see develop in relation to children of manual workers. We should ask whether structural changes are needed in our educational system or a propaganda drive to change attitudes should be attempted so that by extending the base of our intake into higher education, we can enrich the lives not only of individuals, but the community as a whole.

The author is the general secretary of the Association of University Teachers.

Don's diary

Monday

The carillon in Xian's Telegraph Office Tower wakes me as usual at 6 a.m. with its tinkly-sweet chime of "The East is Red". The university car calls punctually to take me to my 0830 lecture slot of three hours. The smiling support group of six professors and research fellows greets me with chat and tea, and the audience of 50 researchers and industrialists is ready, professional, catching up on my diary and a last letter home. Little things crawl over the pages and lend unusual red punctuation to the sentences where my wrist squashes them. Surprised this morning to learn that the university is to offer me an appointment as an Adjunct Professor: would I accept? So I have passed the exam! Anyway I am enamoured of China by now and will enjoy the distant association, so I assent. There will be a little ceremony before I leave next Wednesday.

During the next three hours it will become stifling: the fans are too noisy to run during lectures; the overhead projector will probably overheat and shut itself off. But concentration is intense on what the "foreign expert" has to say.

Tuesday

After 12 days here I am two-thirds through the mission, well settled in but only beginning to feel that I have the real measure of the audience. I am a small transient cog in China's programme of the Four Modernizations, brought over at Unesco expense to give three weeks of lectures on systems engineering and large-system planning at Xian Jiaotong University. The context is very different from the usual academic peregrination: audience a mystery (no prior briefing); Chinese far too respectful (or canny) to give advice or feedback; subject has government backing; the most important to modernization.

Am uncomfortably aware of "foreign expert" status and the fact that most of my audience have not met a Westerner before. I feel like an exhibit undergoing careful scrutiny: must not let UK down. Audience rather impassive, unwilling to ask questions. Discover that academics enjoy theoretical presentation, industrialists want ready-made tool-kits. Just like the UK. I feel more at home. Score bulls-eye with relevant problem on population control pinned from local research group. Everybody's interested now.

Wednesday

Long session with an administrator during the afternoon finding out about the organization of Xian Jiaotong University (XJU). It's rather American with five vice-presidents and this and that and four-year degree courses. XJU is a key university, meaning it gets perhaps 100 or more times more resources than an ordinary one—a two tier system! General political control comes from Peking, with a Party Committee at the top of the university hierarchy. But the accent is now on "expertise". "Redness" does not colour research. Students on university committees? Not likely, not with the memories of those Red Guards. Then a pleasant walk round the leafy campus, a university full of students with barracks for staff and students, with its own kindergarten for staff children. Serviceable buildings circa 1954, but internal fittings poor to primitive. Enormous parking lots on courtyards in staff offices. Visit female student dormitory, eight to 12 bunks to a room, our standard for privacy. The students bowed over their books, all studying engineering. We interview each other, and I am captivated.

Thursday

The audience in uniform blue is now identifiable as friendly individuals with whom I can add lib. They love it. During one of the tea-breaks I was shown the draft of a textbook on systems engineering that the support group has prepared. I receive nice familiar equations and diagrams and ask for translations of the headings. It's a pastiche (not a copy) of Operations Research, Reliability Theory and Systems Theory. How naught of them not to show me

a copy when I arrived—it would have been so helpful. They must have used my lectures as a model to see if they were on the right track!

Friday

Afternoon is always free on Friday as the university is time-tabled for political studies: I am excused. Gives me a chance to relax, catch up on my diary and a last letter home. Little things crawl over the pages and lend unusual red punctuation to the sentences where my wrist squashes them. Surprised this morning to learn that the university is to offer me an appointment as an Adjunct Professor: would I accept? So I have passed the exam! Anyway I am enamoured of China by now and will enjoy the distant association, so I assent. There will be a little ceremony before I leave next Wednesday.

Evening is given over to watching the colour television in my room: two channels, transmissions 6 to 10.30 pm. Through it I have travelled all over China, got acquainted with classical Chinese opera (great fun) won the civil war several times over on film, followed a course on Pinyin, and resisted the blandishments of the advertisements (yes!) wearing me bay purses, carpets, industrial diamonds and ladies' shoes.

Saturday

Another of the Saturday outings to one of the many historical sites hereabouts. Xian had its great days, 200 BC to AD 1000, when it was the capital of the Han, Tang and Ch'ing dynasties. Its population even then of two million and was the start of the Silk Road to the west. Marco Polo wrote a chapter on it. The modern city still uses the 700 gridiron town plan. It works very well. Today we visit the Tang tombs, a long drive out and 1,000 feet nearer the blazing sun in the hills. These private drives give a chance to observe the village communities at close quarters.

By the evening Xian is like a steam bath, and the inside of the Opera House an oven. I am revived by the vice-president's fan. He whispers translations of the songs, but what words (Goodbye mother; My love is as deep as the ocean; My heart will not rest until Taiwan is joined to the mainland). The Chinese orchestra (traditional instruments with a touch of Mando-ven) is entrancing.

Sunday

A day of rest for the Chinese after their six-day working week, which applies to university staff too.

After supper a knock produces the support group. Could they come in to discuss future cooperation between our two departments? Of course (Oh! adjunct professors have strings attached to them). What they want are visiting research fellowships for the systems engineering professors and researchers. A specific request is made for two of their number. I become official, call for formal applications, C.V.s etc. which I will put to my board of Studies and Senate. But I have few qualms. These chaps are quite alright academically and will do an interesting research dimension to the programme at home. And I am cheered to think that this support group may be able to follow me on the City University. I already know that I am becoming a sinophile.

(Postscript: an Associate Professor from XJU joins my department in October for six months as a senior visiting research fellow. What he wants will be continued by one of his research fellows on a year's attachment.)

P. K. McPherson

The author is Professor and Head of the Department of Systems Science at The City University, London.

See also 10.10.80

